
HENRY Y. SINTIM

Department of Crop and Soil Sciences

University of Georgia, Tifton, GA

Office: +1-229-386-3555; Mobile: +1-307-343-6735; Email: hsintim@uga.edu

Education:

2015-2018: Ph.D. Soil Science, Washington State University, Department of Crop and Soil Sciences, Pullman, WA, United States.

2013-2014: M.Sc. Agronomy (Minor in Statistics), University of Wyoming, Laramie, WY, United States.

2007-2011: B.Sc. Agriculture, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.

Professional Work Experience:

2019-Present: Assistant Professor and State Extension Specialist, Soil Science, Department of Crop and Soil Sciences, University of Georgia, Tifton, GA, United States.

2018-2019: Postdoctoral Research Associate, Puyallup Research and Extension Center, Washington State University, Puyallup, WA, United States.

2015-2018: Graduate Assistant, Department of Crop and Soil Sciences, Washington State University, WA, United States.

2013-2014: Graduate Research Assistant, Department of Plant Sciences, University of Wyoming, Laramie, WY, United States.

2012: Field Technician, Crops Research Institute, Council for Scientific and Industrial Research, Fumesua, Ghana.

2011- 2012: Teaching and Research Assistant (National Service), Department of Crop and Soil Sciences, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.

2009: Laboratory Technician (Internship), Soil Science Division, Cocoa Research Institute of Ghana, New Tafo-Akim, Ghana.

Student Mentoring & Supervision:**Graduate Student Advisory Committee Chair:**

2021-Present: Ankomah, G.; Ph.D. Student, Department of Crop and Soil Sciences, University of Georgia, Tifton, GA, United States.

2020-Present: Amissah, S.; Ph.D. Student, Department of Crop and Soil Sciences, University of Georgia, Tifton, GA, United States.

2020-2021: Agyei, B.K.; M.S. Student (Dual Degree Program with University of Padova, Italy), Department of Crop and Soil Sciences, University of Georgia, Tifton, GA, United States.

Graduate Student Advisory Committee Member:

2021-Present: Parkash, V.; Ph.D. Student (Advisory Committee Chair – Snider, J.), Department of Crop and Soil Sciences, University of Georgia, Tifton, GA, United States.

Other Student Mentoring:

2021-2022: Bodine, G.; Undergraduate student of Texas A&M University; Mentored in ASA-CSSA-SSSA Golden Opportunity Scholar Program.

2020-2021: Griffin, L.; Undergraduate student of University of Georgia; Mentored and featured in UGA CAES Undergraduate Research Symposium.

Teaching/Guest Lectures:

2021-2022: Guest Lecturer; Food System Sustainability, Security, and Resilience (AESC 8310); University of Georgia, Athens, GA, United States; Spring Semesters. Provided a 60-minute lecture on the topic "Environmental effects of the food system: Perspectives on plastic mulch" every year.

2019: Guest Lecturer; Soils and Hydrology (CRSS 3060); University of Georgia, Tifton, GA, United States; Fall Semester. Provided three 50-minute lectures on soil pH, nutrient management, and soil testing.

2017: Teaching Assistant; Environmental Soil Physics (SOILS 513), Fall Semester; Washington State University, Puyallup, WA, United States. Provided two 75-minute lectures on capillarity and methods for measuring soil water potential. Also graded assignments and organized periodic tutorials for students.

2017: Main Instructor for a workshop on "Data Management and Statistical Analyses with R Software." January 11-12, 2016; Faculty of Agriculture, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.

2016: Main Instructor for a workshop on "Experimental Design and Analyses of Agronomic Research." January 9-13, 2017; Faculty of Agriculture, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.

2014: Guest Lecturer; Organic Food Production (PLNT 5120); University of Wyoming, Sheridan, WY, United States. Provided one 75-minute lecture on "Integration of oilseeds into cropping systems."

2012: Teaching Assistant for Plant Breeding (CS 461), Plant Biotechnology (CS 458), and Genetics (CS 156); Kwame Nkrumah University of Science and Technology, Kumasi, Ghana. Provided about two 120-minute lectures for each course. Also graded assignments and organized periodic tutorials for students.

2012: Instructor of Records for Methods in Molecular Biology Laboratory (AGB 254) and Plant Biotechnology Laboratory (AGB 352).

Grant Funding:**Awarded (\$15,932,482 total; \$2,397,995 to UGA; \$489,624 to Dr. Sintim at UGA):**

- 2017-2023: Southeast partnership for advanced renewables from carinata. USDA-NIFA Agriculture and Food Research Initiative (total \$15,100,000; UGA subaward \$1,868,492; Dr. Sintim UGA budget \$41,696). Lead PD–Dr. David Wright; Dr. Sintim role–co-PI (36 total key personnel).
- 2022: Fertilizer and irrigation scheduling effects on corn productivity. Georgia Corn Commission (total \$29,688; Dr. Sintim UGA budget \$27,688). Lead PI–Dr. Henry Sintim (4 total key personnel).
- 2022: Enhancing Georgia cotton production through tailored plant nutrition and soil management practices. Georgia Cotton Commission (total \$35,000; Dr. Sintim UGA budget \$35,000). Lead PI–Dr. Henry Sintim (5 total key personnel).
- 2022: Assessing primary, secondary, and micronutrient dynamics in corn production. Georgia Corn Commission (total \$105,740; Dr. Sintim UGA budget \$105,740). Lead PI–Dr. Henry Sintim (2 total key personnel).
- 2022: Microbial activities as affected by soil health management systems and impact on corn productivity and nutrient uptake. Georgia Corn Commission (total \$24,000; Dr. Sintim UGA budget \$6,000). Lead PI–Dr. Mussie Habtesellassie; Dr. Sintim role–co-PI (2 total key personnel).
- 2022: Evaluation of broadcast versus banding dry fertilizer application methods to improve corn yield. Georgia Corn Commission (total \$38,575; Dr. Sintim UGA budget \$0). Lead PI–Dr. Simerjeet Virk; Dr. Sintim role–co-PI (3 total key personnel).
- 2021-2022: Beltwide N refinement study. Cotton Incorporated (total \$365,000; UGA subaward \$10,000; Dr. Sintim UGA budget \$5,000). Lead PD–Dr. Gaylon Morgan; Dr. Sintim role–Georgia PI (18 total key personnel).
- 2021: Irrigation and nutrient scheduling effects on corn productivity. Georgia Corn Commission (total \$25,000; Dr. Sintim UGA budget \$22,000). Lead PI–Dr. Henry Sintim (4 total key personnel).
- 2020-2021: Are secondary and micronutrients limiting corn yield potential in Georgia? Georgia Corn Commission (total \$176,500; Dr. Sintim UGA budget \$176,500). Lead PI–Dr. Henry Sintim (3 total key personnel).
- 2020-2021: Optimizing management practices to improve plant nutrition and soil health in cotton production systems in Georgia. Georgia Cotton Commission (total \$70,000; Dr. Sintim UGA budget \$70,000). Lead PI–Dr. Henry Sintim (6 total key personnel).
- 2020: On-Farm nutrient tracking using tissue sampling (Year 3 of R. Nolan Project). Georgia Corn Commission (total \$15,000; Dr. Sintim UGA budget \$0). Lead PI–Dr. Corey Bryant; Dr. Sintim role–co-PI (4 total key personnel).
- 2017-2019: Biodegradable plastic mulches: performance, degradation, and impacts on agroecosystems. USDA-NIFA Western SARE Graduate Student Project (total \$23,063; Dr. Sintim UGA budget \$0). Student PI–Dr. Henry Sintim (4 total key personnel).
- 2014-2015: Optimizing camelina feedstock production in wheat/fallow rotation with a minimum negative impact on wheat production. USDA-NIFA Western SARE Graduate Student Project (total \$24,916; Dr. Sintim UGA budget \$0). Student PI–Dr. Henry Sintim (2 total key personnel).

Pending Review:

2023-2026: Asset or liability: optimizing raw manure management to sustain agroecosystem functions and food safety. Foundation for Food & Agriculture Research (total \$744,280; Dr. Sintim UGA budget \$219,934). Lead PD–Dr. Henry Sintim (8 total key personnel).

Shortlisted Preproposal but Unfunded Full Proposal:

2022-2025: Integrated soil health management systems to sustain vegetable production in the southeast United States. USDA-NIFA Specialty Crop Research Initiative (total \$3,497,050; Dr. Sintim UGA budget \$454,400). Lead PD–Dr. Henry Sintim (12 total key personnel).

2021-2024: Energy sorghum for manufacturing sustainable jet fuel and enhancing ecosystem services in the southern United States. Southeastern SunGrant, USDA-NIFA (total \$342,054; Dr. Sintim UGA budget \$78,397). Lead PI–Dr. Puneet Dwivedi; Dr. Sintim role–co-PI (11 total key personnel).

2020-2026: Reinventing southern agricultural production systems by integrating turfgrass. Foundation for Food and Agriculture Research (total \$999,250; Dr. Sintim UGA budget \$176,060). Lead PI–Dr. Lisa Baxter; Dr. Sintim role–co-PI (7 total key personnel).

2020-2024: Economic value of ecosystem services provided by cellulosic bioenergy crops relative to pine plantations on marginal soils in the context of rising extreme weather events. US Department of Energy (total \$3,999,232; Dr. Sintim UGA budget \$204,402). Lead PI–Dr. Puneet Dwivedi; Dr. Sintim role–co-PI (15 total key personnel).

2020-2023: Sustaining specialty crop production through integrated soil health management. USDA-NIFA Specialty Crop Research Initiative (total \$3,646,765; Dr. Sintim UGA budget \$258,085). Lead PD–Dr. Henry Sintim (17 total key personnel).

Other Notable Unfunded Proposals:

2022-2027: Implementing Climate-Smart Agriculture and Forest Practices to Achieve Greenhouse Gas Reduction Benefits in Diverse U.S. USDA-NRCS Partnerships for Climate-Smart Commodities (total \$29,155,582; UGA subaward \$1,079,534; Dr. Sintim UGA budget \$597,484). Lead PD–Dr. Rongzhong Ye; Dr. Sintim role–co-PI (28 total key personnel).

2022-2027: SE Partnership for Advancing Climate-Smart Circular Economy in Forestry (SPACE-F). USDA-NRCS Partnerships for Climate-Smart Commodities (total \$51,800,000; Dr. Sintim UGA budget \$344,238). Lead PD–Dr. Puneet Dwivedi; Dr. Sintim role–co-PI (56 total key personnel).

2022-2023: Smart-Georgia: A Consortium for Climate Smart Investment. USDA-NIFA Agriculture and Food Research Initiative (total \$28,600,000; Dr. Sintim UGA budget \$678,891). Lead PD–Dr. Bhabesh Dutta; Dr. Sintim role–co-PD (36 total key personnel).

Industry Partnership Support:

Direct Funding Support (\$39,750 total; \$39,750 to Dr. Sintim UGA program):

2022: Pivot Bio PROVEN™ and nitrogen application rates and scheduling effects in corn. Pivot Bio, Inc (\$16,000).

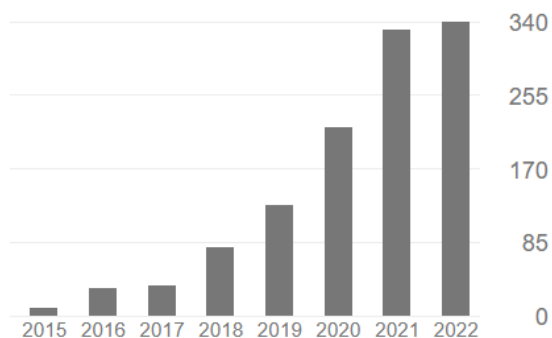
- 2021: In-furrow and 2x2 starter fertilizer application effects on corn growth and productivity. Helena Agri-Enterprises, LLC (\$7,000).
- 2020: Evaluating corn response to Pivot Bio PROVEN™ at various nitrogen use rates. Pivot Bio, Inc (\$10,000).
- 2020: Effects of starter fertility on the growth and yield of corn. Helena Agri-Enterprises, LLC (\$6,750).

In-kind Support (\$24,050 total value to Dr. Sintim UGA program):

- 2022: Corn, soybean, and sorghum seeds by Pioneer Hi-Bred International, Inc. (valued at \$900); peanut seeds by Georgia Seed Development (valued at \$1,200); corn seeds by AgriGold (valued at \$1,200); Stoneville cotton seeds by BASF (valued at \$450); biochar from Wakefield Agricultural Carbon, LLC (valued at \$750); pesticides by FMC Corporation (valued at \$900); pesticides and granular and liquid fertilizer products by Helena Agri-Enterprises (valued at \$2,100).
- 2021: Corn, soybean, and sorghum seeds by Pioneer Hi-Bred International, Inc. (valued at \$900); peanut seeds by Georgia Seed Development (valued at \$1,200); corn seeds by AgriGold (valued at \$1,000); DEKALB corn seeds and Deltapine cotton seeds by Bayer (valued at \$850); Stoneville cotton seeds by BASF (valued at \$950), liquid fertilizer products by TradeMark Nitrogen, Corp. (valued at \$600); Granular and liquid fertilizer products by Helena Agri-Enterprises (\$5,500); Liquid fertilizer by Big Bend Agri-Services, Inc. (\$1,500); biochar from Wakefield Agricultural Carbon, LLC (valued at \$1,050).
- 2020: Corn, soybean, and sorghum seeds by Pioneer Hi-Bred International, Inc. (valued at \$600); peanut seeds by Georgia Seed Development (valued at \$1,600); corn seeds by AgriGold (valued at \$200); DEKALB corn seeds by Bayer (valued at \$200); liquid fertilizer products by TradeMark Nitrogen, Corp. (valued at \$400).

Google Scholar Citation Indices (by August 31, 2022):

	All	Since 2017
Citations	1183	1134
h-index	16	16
i10-index	22	21



Peer-Reviewed Journal Publications (30 total; 9 since August 2019):

* *Indicates corresponding authorship*

Underlined lead author designate work by Dr. Sintim's mentee

Efforts on non-lead, non-corresponding, or non-student-lead papers are in parenthesis

- Habteselassie, M., Woodruff, L., Norton, J., Ouyang, Y., **Sintim, H.Y.**, 2022. Changes in microbial communities in soil treated with organic or conventional N sources. *J. Environ. Qual.* (In press). <https://doi.org/10.1002/jeq2.20406>. (0% funding to study; 0% study design and implementation; 0% data collection; 0% statistical analyses; 10% writing and editing)
- Sintim, H.Y.**, Shahzad, K., Bary, A.I., Collins, D.P., Myhre, E.A., Flury, M., 2022. Differential gas exchange and soil microclimate dynamics under biodegradable plastic, polyethylene, and paper mulches. *Ital. J. Agron.* 17, 1979. <https://doi.org/10.4081/ija.2022.1979>
- Yu, Y., **Sintim, H.Y.**, Astner, A.F., Hayes, D.G., Bary, A., Zelenyuk, A., Qafoku, O., Kovarik, L., Flury, M., 2022. Enhanced transport of TiO₂ in unsaturated sand and soil after release from biodegradable plastic during composting. *Environ. Sci. Technol.* (in press). <https://doi.org/10.1021/acs.est.1c07169> (25% funding to study; 30% study design and implementation; 20% data collection; 0% statistical analyses; 10% writing and editing)
- Kusi, N.Y.O., Lewis, K.L., Morgan, G.D., Ritchie, G.L., Deb, S.K., Stevens, R.D., **Sintim, H.Y.**, 2021. Cotton cultivar response to potassium fertilizer application in Texas' southern high plains. *Agron. J.* 113, 5436–5453. <https://doi.org/10.1002/agj2.20807> (0% funding to study; 0% study design and implementation; 0% data collection; 0% statistical analyses; 20% writing and editing)
- Kusi, N.Y.O., Stevens, W.B., **Sintim, H.Y.**, Garcia y Garcia, A., Mesbah, A.O., 2021. Phosphorus fertilization and enhanced efficiency products effects on sugarbeet. *Ind. Crops Prod.* 171, 113887. <https://doi.org/10.1016/j.indcrop.2021.113887>. (0% funding to study; 0% study design and implementation; 0% data collection; 80% statistical analyses; 50% writing and editing)
- Sintim, H.Y.***, Bandopadhyay, S., English, M.E., Bary, A., Liqueet y González, J.E., DeBruyn, J.M., Schaeffer, S.M., Miles, C.A., Flury, M., 2021. Four years of continuous use of soil-biodegradable plastic mulch: impact on soil and groundwater quality. *Geoderma* 381, 114665. <https://doi.org/10.1016/j.geoderma.2020.114665>
- Anunciado, M.B., Hayes, D.G., Wadsworth, L.C., English, M.E., Schaeffer, S.M., **Sintim, H.Y.**, Flury, M., 2021. Impact of agricultural weathering on physicochemical properties of biodegradable plastic mulch films: comparison of two diverse climates over four successive years. *J. Polym. Environ.* 29, 1–16. <https://doi.org/10.1007/s10924-020-01853-1> (0% funding to study; 10% study design and implementation; 30% data collection; 10% statistical analyses; 10% writing and editing).
- Sintim, H.Y.**, Bary, A.I., Hayes, D.G., Wadsworth, L.C., Anunciado, M.B., English, M.E., Bandopadhyay, S., Schaeffer, S.M., DeBruyn, J.M., Miles, C.A., Reganold, J.P., Flury, M., 2020. In situ degradation of biodegradable plastic mulch films in compost and agricultural soils. *Sci. Total Environ.* 727, 138668. <https://doi.org/10.1016/j.scitotenv.2020.138668>
- Bandopadhyay, S., **Sintim, H.Y.**, DeBruyn, J.M., 2020. Effects of biodegradable plastic film mulching on soil microbial communities in two agroecosystems. *PeerJ* 8, e9015. <https://doi.org/10.7717/peerj.9015> (0% funding to study; 30% study design and implementation; 30% data collection; 20% statistical analyses; 25% writing and editing).
- Sintim, H.Y.**, Bary, A.I., Hayes, D.G., English, M.E., Schaeffer, S.M., Miles, C.A., Zelenyuk, A., Suski, K., Flury, M., 2019. Release of micro- and nanoparticles from

- biodegradable plastic during in situ composting. *Sci. Total Environ.* 675, 686–693.
<https://doi.org/10.1016/j.scitotenv.2019.04.179>
- Sintim, H.Y.**, Bandyopadhyay, S., English, M.E., Bary, A.I., DeBruyn, J.M., Schaeffer, S.M., Miles, C.A., Reganold, J.P., Flury, M., 2019. Impacts of biodegradable plastic mulches on soil health. *Agric. Ecosyst. Environ.* 273, 36–49.
<https://doi.org/10.1016/j.agee.2018.12.002>
- Shahzad, K., Bary, A.I., Collins, D.P., Chalker-Scott, L., Abid, M., **Sintim, H.Y.**, Flury, M., 2019. Carbon dioxide and oxygen exchange at the soil-atmosphere boundary as affected by various mulch materials. *Soil Tillage Res.* 194, 104335.
<https://doi.org/10.1016/j.still.2019.104335> (0% funding to study; 20% study design and implementation; 25% data collection; 80% statistical analyses; 10% writing and editing).
- Shahzad, K., Abid, M., **Sintim, H.Y.***, Hussain, S., Nasim, W., 2019. Tillage and biochar effects on wheat productivity under arid conditions. *Crop Sci.* 59, 1–9.
<https://doi.org/10.2135/cropsci2018.08.0485>
- Shahzad, K., Abid, M., **Sintim, H.Y.***, 2018. Wheat productivity and economic implications of biochar and inorganic nitrogen application. *Agron. J.* 110, 2259–2267.
<https://doi.org/10.2134/agronj2018.01.0055>
- Zhang, L., **Sintim, H.Y.**, Bary, A.I., Hayes, D.G., Wadsworth, L.C., Anunciado, M.B., Flury, M., 2018. Interaction of *Lumbricus terrestris* with macroscopic polyethylene and biodegradable plastic mulch. *Sci. Total Environ.* 635, 1600–1608.
<https://doi.org/10.1016/j.scitotenv.2018.04.054> (0% funding to study; 40% study design and implementation; 40% data collection; 30% statistical analyses; 20% writing and editing).
- Obour, A.K., Chen, C., **Sintim, H.Y.**, McVay, K., Lamb, P., Obeng, E., Mohammed, Y.A., Khan, Q., Afshar, R.K., Zheljzakov, V.D., 2018. Camelina sativa as a fallow replacement crop in wheat-based crop production systems in the US Great Plains. *Ind. Crops Prod.* 111, 22–29. <https://doi.org/10.1016/j.indcrop.2017.10.001> (0% funding to study; 30% study design and implementation; 30% data collection; 20% statistical analyses; 20% writing and editing).
- Saglam, M., **Sintim, H.Y.**, Bary, A.I., Miles, C.A., Ghimire, S., Inglis, D.A., Flury, M., 2017. Modeling the effect of biodegradable paper and plastic mulch on soil moisture dynamics. *Agric. Water Manag.* 193, 240–250.
<https://doi.org/10.1016/j.agwat.2017.08.011> (40% funding to study; 30% study design and implementation; 30% data collection; 10% statistical analyses; 20% writing and editing).
- Hayes, D.G., Wadsworth, L.C., **Sintim, H.Y.**, Flury, M., English, M., Schaeffer, S., Saxton, A.M., 2017. Effect of diverse weathering conditions on the physicochemical properties of biodegradable plastic mulches. *Polym. Test.* 62, 454–467.
<https://doi.org/10.1016/j.polymertesting.2017.07.027> (0% funding to study; 20% study design and implementation; 30% data collection; 15% statistical analyses; 15% writing and editing).
- Sintim, H.Y.**, Zheljzakov, V.D., Foley, M.E., Evangelista, R.L., 2017. Coal-bed methane water: effects on soil properties and camelina productivity. *J. Environ. Qual.* 46, 641–648. <https://doi.org/10.2134/jeq2016.10.0403>
- Nelimor, C., **Sintim, H.Y.**, Kena, A.W., Akromah, R., 2017. Using surface response models to evaluate the effects of kinetin on *Dioscorea alata* propagated in vitro. *J. Agric. Sci. Technol. B* 7, 69–78. <https://doi.org/10.17265/2161-6264/2017.02.001> (20% funding to study; 50% study design and implementation; 20% data collection; 100% statistical analyses; 30% writing and editing).

- Sintim, H.Y.**, Zheljazkov, V.D., Obour, A.K., Garcia y Garcia, A., 2016. Managing harvest time to control pod shattering in oilseed camelina. *Agron. J.* 108, 489–494. <https://doi.org/10.2134/agronj2015.0300>
- Sintim, H.Y.**, Adjesiwor, A.T., Zheljazkov, V.D., Islam, M.A., Obour, A.K., 2016. Nitrogen application in sainfoin under rain-fed conditions in Wyoming: productivity and cost implications. *Agron. J.* 108, 294–300. <https://doi.org/10.2134/agronj2015.0317>
- Sintim, H.Y.**, Zheljazkov, V.D., Obour, A.K., Garcia y Garcia, A., Foulke, T.K., 2016. Evaluating agronomic responses of camelina to seeding date under rain-fed conditions. *Agron. J.* 108, 349–357. <https://doi.org/10.2134/agronj2015.0153>
- Amissah, S., Coleman, P.A., **Sintim, H.Y.***, Akromah, R., 2016. In vitro control of microbial contamination of sweet potatoes cultured with nodal explants. *Annu. Res. Rev. Biol.* 9, 1–8. <https://doi.org/10.9734/ARRB/2016/22995>
- Sintim, H.Y.**, Zheljazkov, V.D., Obour, A.K., Garcia y Garcia, A., Foulke, T.K., 2015. Influence of nitrogen and sulfur application on camelina performance under dryland conditions. *Ind. Crops Prod.* 70, 253–259. <https://doi.org/10.1016/j.indcrop.2015.03.062>
- Obour, A.K., **Sintim, H.Y.**, Obeng, E., Jeliaskov, V.D., 2015. Oilseed camelina (*Camelina sativa* L. Crantz): production systems, prospects and challenges in the USA Great Plains. *Adv. Plants Agric. Res.* 2, 1–10. <https://doi.org/10.15406/apar.2015.02.00043> (*Review paper–35% writing and editing*).
- Sintim, H.Y.**, Burkhardt, A., Gawde, A., Cantrell, C.L., Astatkie, T., Obour, A.E., Zheljazkov, V.D., Schlegel, V., 2015. Hydrodistillation time affects dill seed essential oil yield, composition, and bioactivity. *Ind. Crops Prod.* 63, 190–196. <https://doi.org/10.1016/j.indcrop.2014.09.058>
- Shiwakoti, S., **Sintim, H.Y.**, Poudyal, S., Bufalo, J., Cantrell, C.L., Astatkie, T., Jeliaskova, E., Ciampa, L., Zheljazkov, V., 2015. Diurnal effects on *Mentha canadensis* oil concentration and composition at two different harvests. *HortScience* 50, 85–89 (*0% funding to study; 25% study design and implementation; 30% data collection; 0% statistical analyses; 15% writing and editing*).
- Burkhardt, A., **Sintim, H.Y.**, Gawde, A., Cantrell, C.L., Astatkie, T., Zheljazkov, V.D., Schlegel, V., 2015. Method for attaining fennel (*Foeniculum vulgare* Mill.) seed oil fractions with different composition and antioxidant capacity. *J. Appl. Res. Med. Aromat. Plants* 2, 87–91. <https://doi.org/10.1016/j.jarmap.2015.04.003> (*0% funding to study; 25% study design and implementation; 30% data collection; 0% statistical analyses; 15% writing and editing*).
- Sintim, H.Y.***, Akromah, R., 2015. Differing sucrose requirements for in-vitro conservation of cassava genotypes. *Int. J. Plant Soil Sci.* 7, 45–54. <https://doi.org/10.9734/IJPSS/2015/17564>

Editorial and Viewpoint Journal Publications (3 total; 2 since August 2019):

- Kishimoto-Mo, A.W., **Sintim, H.Y.**, Ledda, L., 2022. Use of biodegradable plastic films in agriculture and their fate in soil. *Ital. J. Agron.* 17, 2155. <https://doi.org/10.4081/ija.2022.2155>
- Filipović, V., Bristow, K.L., Filipović, L., Wang, Y., **Sintim, H.Y.**, Flury, M., Šimůnek, J., 2020. Sprayable biodegradable polymer membrane technology for cropping systems: challenges and opportunities. *Environ. Sci. Technol.* 54, 4709–4711. <https://doi.org/10.1021/acs.est.0c00909>

Sintim, H.Y., Flury, M., 2017. Is biodegradable plastic mulch the solution to agriculture's plastic problem? *Environ. Sci. Technol.* 51, 1068–1069. <https://doi.org/10.1021/acs.est.6b06042>.

Books/ Book Chapter (2 total; 1 since August 2019):

Shahzad, K., **Sintim, H.Y.**, Ahmad, F., Abid, M., Nasim, W., 2022. Importance of carbon sequestration in the context of climate change, in: Jatoi, W.N., Mubeen, M., Ahmad, A., Cheema, M.A., Lin, Z., Hashmi, M.Z. (Eds.), *Building Climate Resilience in Agriculture*. Springer, Cham., pp. 385–401. https://doi.org/https://doi.org/10.1007/978-3-030-79408-8_23

Hayes, D.G., Anunciado, M.B., Debruyn, J.M., Bandopadhyay, S., Schaeffer, S., English, M., Ghimire, S., Miles, C., Flury, M., **Sintim, H.Y.**, 2019. Biodegradable plastic mulch films for sustainable specialty crop production, in: Gutiérrez, T.J. (Ed.), *Polymers for Agri-Food Applications*. Springer, Cham, Switzerland, pp. 183–213.

Peer Reviewed Extension Publications (9 total; 2 since August 2019):

Seepaul, R., Small, I.M., Devkota, P., **Sintim, H.Y.**, Mulvaney, M.J., George, S., Leon, R.G., Paula-Moraes, V., Bennett, R., Pokrzywinski, A., Geller, D., Marois, J.J., Wright, D.L., 2022. *Carinata, the Sustainable Crop for a Bio-based Economy: 2021 – 2022 Production Recommendations for the Southeastern United States*. Publication SS-AGR-384, UF/IFAS Extension Service, University of Florida, Gainesville, FL, USA.

Hand, C., Culpepper, S., Harris, G., Kemerait, B., Liu, Y., Perry, C., Hall, D., Porter, W., Roberts, P., Smith, A., Virk, S., Bag, S., **Sintim, H.**, 2022. *Georgia cotton production guide*. Publication 124-4, University of Georgia Extension, Athens, GA, United States.

Flury, M., Bary, A., DeBruyn, J. Schaeffer, S., **Sintim, H.**, Bandopadhyay, S. 2015. What is soil quality and how is it measured? *Extension Bulletin Report # SE-2015-01*, August 2015; *Biodegradable Mulch*, University of Tennessee, Knoxville, TN, United States.

Sintim, H.Y., Jeliaskov, V.D., Obour, A.K., Garcia y Garcia, A., Foulke, T.K. 2014. The effects of seeding date, cultivar, and nitrogen on the performance of camelina. Publication UW-AES-2014; *Field Days Bulletin*; pp. 119-120; University of Wyoming, Laramie, WY, United States.

Sintim, H.Y., Jeliaskov, V.D., Obour, A.K., Garcia y Garcia, A., Foulke, T.K., Smith, D., 2014. Camelina as an alternative crop in wheat-fallow rotation. Publication UW-AES-2014; *Field Days Bulletin*; pp. 113-114, University of Wyoming, Laramie, WY, United States.

Sintim, H.Y., Jeliaskov, V.D., Obour, A.K., Garcia y Garcia, A. Foulke, T.K., Vardiman, J. 2014. Effects of nitrogen and sulfur application on camelina. Publication UW-AES-2014; *Field Days Bulletin*; pp. 117-118; University of Wyoming, Laramie, WY, United States.

Sintim, H.Y., Jeliaskov, V.D., Obour, A.K., Garcia y Garcia, A., Foulke, T.K., Vardiman, J. 2014. Seeding date and cultivar affects growth and yield of camelina. Publication UW-AES-2014; *Field Days Bulletin*; pp. 115-116; University of Wyoming, Laramie, WY, United States.

Jeliaskov, V.D., **Sintim, H.Y.**, 2014. Sainfoin under test for forage productivity and quality. Publication UW-AES-2014; *Field Days Bulletin*; pp. 103; University of Wyoming, Laramie, WY, United States.

Jeliazkov, V.D., **Sintim, H.Y.**, 2014. Evaluation of alfalfa and sainfoin varieties under dryland environment. Publication UW-AES-2014; Field Days Bulletin; pp.103, University of Wyoming, Laramie, WY, United States.

Other Extension Output/Bulletin/Factsheet/Newsletter (11 total; 7 since August 2019):

- Ethredge, R., **Sintim, H.**, Bryant, C., 2022. Corn production in Georgia. Georgia Corn Production Guide; University of Georgia Extension, Athens, GA, United States.
- Harris, G., **Sintim, H.**, 2022. Fertilization. Georgia Corn Production Guide; University of Georgia Extension, Athens, GA, United States.
- Sintim, H.Y.**, S., Amisah, S., Agyei, B.K., Hollifield, S., Dowdy, M., Sapp, P., Harris, G. 2021. Cotton response to varying nutrient stress conditions. Extension Bulletin; August 11, 2021; University of Georgia, Tifton, GA, United States.
- Sintim, H.Y.**, Sapp, P., Hollifield, S., Amisah, S., Agyei, B.K. 2021. Improving soil health conditions in row crop production systems. Extension Bulletin; August 11, 2021; University of Georgia, Tifton, GA, United States.
- Sintim, H.Y.**, Hollifield, S., Amisah, S., Agyei, B.K. 2021. Soil health management effects on row crop productivity. Extension Bulletin; July 16, 2021; University of Georgia, Tifton, GA, United States.
- Sintim, H.**, Harris, G. 2020. Late season potassium deficiency in cotton. Newsletter; August 2020; pp. 13–15; UGA Cotton Team; University of Georgia, Tifton, GA, United States.
- Madrid, B., Zhang, H., Miles, C., Flury, M., **Sintim, H.**, Ghimire, S., DeVetter, L., 2020. Assessing degradation of soil-biodegradable plastic mulches. Small Fruits, Washington State University, Pullman, WA, United States.
- Sintim, H.Y.**, Shahzad, K., Bary, A. I., Flury, M. 2017. How well does biodegradable plastic mulch degrade in compost and soil? Extension Bulletin; September 2017; Puyallup Research and Extension Center, WSU, Puyallup, WA, United States.
- Sintim, H.Y.**, Shahzad, K., Bary, A. I., Flury, M. 2017. Navigating WSU Puyallup compost mixture calculator. Factsheet; August 2017; Puyallup Research and Extension Center, Washington State University, Puyallup, WA, United States.
- Sintim, H.**, 2016. How the DiSC assessment can help build better relationships in your career. CSA News 61, 30–31. <https://doi.org/10.2134/csa2016-61-6-11>.
- Sintim, H.**, 2015. Seeing challenges as stepping stones in graduate education. CSA News 60, 36–37. <https://doi.org/10.2134/csa2015-60-7-15>

Extension Agent Training:

- Sintim, H.Y.**, Lessl, J., Cassity-Duffey, K., 2022. Nutrient management in row crops (SES-024030), “Nutrient use efficiency and factors affecting nutrient availability” May 12, 2022; Virtual Platform; University of Georgia, Tifton, GA, United States. (*Registered by 7 Extension Agents and 6 attended*).
- Sintim, H.Y.**, 2022. Nutrient management in row crops (SES-024028), “Nutrient recommendation and fertilizer application rates” February 24, 2022; Virtual Platform; University of Georgia, Tifton, GA, United States. (*Registered by 10 Extension Agents and 10 attended*).

- Sintim, H.Y.**, 2022. Nutrient management in row crops (SES-024029), “Soil test: correlation, calibration, and application” February 3, 2022; Virtual Platform; University of Georgia, Tifton, GA, United States. *(Registered by 6 Extension Agents and 5 attended)*.
- Sintim, H.Y.**, 2021. Sustainable Soil Management Systems in Row Crops (SES-023509), “Soil health indicators and how they are measured.” November 18, 2021; Virtual Platform; University of Georgia, Tifton, GA, United States. *(Registered by 9 Extension Agents and 9 attended)*.
- Sintim, H.Y.**, 2021. Nutrient management in row crops (SES-023507), “Soil pH and liming requirement.” September 23, 2021; Virtual Platform; University of Georgia, Tifton, GA, United States. *(Registered by 7 Extension Agents and 7 attended)*.
- Hajihassani, A., Barrett, R., Porter, W., **Sintim, H.Y.**, Marquez, J. 2021. Cover crop production and soil health (SES-023290). July 6, 2021; Virtual Platform; University of Georgia, Tifton, GA, United States. *(Registered by 8 Extension Agents and 8 attended; Presented on the topic “Usages of cover crops for improving soil health”)*.
- Sintim, H.Y.**, Harris, G. 2021. Nutrient management in row crops (SES-023506), “Staying on top of your nutrient management program.” March 4, 2021; Virtual Platform; University of Georgia, Tifton, GA, United States. *(Registered by 13 Extension Agents and 10 attended)*.
- Sintim, H.Y.**, Harris, G. 2021. Nutrient management in row crops (SES-023522), “Principles of soil fertility and plant nutrition.” February 4, 2021; Virtual Platform; University of Georgia, Tifton, GA, United States. *(Registered by 24 Extension Agents and 24 attended)*.
- Roberts, P., Harris, G., Kemerait, R.C., Snider, J., Porter, W., Schmidt, S., Virk, S., Liu, Y., Bag, S., **Sintim, H.Y.**, Hand, C. 2021. Cotton production agent update (SES-023496). January 13, 2021; Virtual Platform; University of Georgia, Tifton, GA, United States. *(Registered by 54 Extension Agents and 54 attended; Presented on the topic “K deficiency in cotton production”)*.
- Porter, W., Virk, S., **Sintim, H.Y.**, Jackson, D. 2020. Precision Ag and Irrigation Update (SES-022581), “Basic Principles of Precision Soil Sampling.” November 17, 2020; Southwest Georgia Research and Education Center, University of Georgia, Plains, GA, United States. *(Registered by 13 Extension Agents and 13 attended; Presented on the topic “Variability in soil test results and implications for creating nutrient management zones”)*.

Extension & Outreach Presentations:

Underlined lead personnel designate presentation by Dr. Sintim’s mentee

- Sintim, H.Y.** 2022. Soil fertility and soil health consideration in cotton production. 2022 UGA Cotton Production Workshop, January 25, 2022; In-person, Tifton Campus Conference Center, University of Georgia, Tifton, GA, United States.
- Sintim, H.Y.** 2021. Optimizing Nutrient Management for Corn Production. 2022 Corn Short Course, December 14, 2021; In-person, Tifton Campus Conference Center, University of Georgia, Tifton, GA, United States.
- Amissah, S., **Sintim, H.Y.** 2021. Nutrient and irrigation scheduling effects on corn productivity. 2021 UGA Stripling Irrigation Research Park Virtual Field Day; July 21, 2021 (Pre-recorded presentation as video for the Field Day); Camilla, GA, United States.
- Sintim, H.Y.** 2021. Optimizing plant nutrition in cotton. 2021 UGA Stripling Irrigation Research Park Virtual Field Day; July 21, 2021 (Pre-recorded presentation as video for the Field Day); Camilla, GA, United States.

- Sintim, H.Y.** 2021. Peanut cultivar response to nutrient applications. 2021 UGA Stripling Irrigation Research Park Virtual Field Day; July 21, 2021 (Pre-recorded presentation as video for the Field Day); Camilla, GA, United States.
- Sintim, H.Y.** 2021. Updates on “Long-term soil health study” study. 2021 Georgia Cotton Commission Research Review Day; July 16, 2021; Tifton, GA, United States.
- Sintim, H.Y.** 2021. Update on “Are secondary and micronutrients limiting corn yield potential in Georgia” study. 2021 GACCC/GACGA Board Member Tour; June 9, 2021; Tifton, GA, United States.
- Sintim, H.Y.** 2021. Ensuring plant nutrient sufficiency for optimum grain crop production. 2021 Corn/Soybean Production Meeting; January 8-February 16, 2021 (Pre-recorded presentation as video for the production meeting); Tifton, GA, United States.
- Sintim, H.Y.** 2020. Hidden hunger in cotton nutrition. Field Talk Friday; Yara North America; September 11, 2020 (Pre-recorded presentation as video); Tifton, GA, United States.
- Sintim, H.Y.** 2020. Improving soil health in cotton production system in Georgia. 2020 Cotton and Peanut Research Virtual Field Day; September 09, 2020 (Pre-recorded presentation as video for the Field Day); Tifton, GA, United States.
- Sintim, H.Y.** 2020. Optimizing management practices to improve plant nutrition and soil health in cotton production systems in Georgia. 2020 UGA Southeast Research and Education Center Field Day; August 12, 2020 (Pre-recorded presentation as video for the Field Day); Midville, GA, United States.
- Sintim, H.Y., Harris, G.** 2020. Updates on nutrient management in cotton. Georgia Cotton Commission’s 13th Annual Meeting & UGA Cotton Production Workshop; January 29, 2020; Tifton, GA, United States.
- Sintim, H.Y., Harris, G.** 2020. Agronomic updates and yield goals. 2020 Winter Meeting and Trade Show; Georgia Plant Food Educational Society; Inc.; January 15, 2020; Tifton, GA, United States.
- Sintim, H.Y., Harris, G.** 2019. Effective management of soil pH. Brooks County Extension Training Meeting; December 03, 2019; Quitman, GA, United States.

Other Extension/Outreach Activities:

- 2009-Present: On-farm consultation visits to assess soil and nutrient management-related issues for growers (57 total; 21 since August 2019).
- 2021: On-farm demonstration trial on “Are secondary and micronutrients limiting corn yield potential in Georgia” study. Three farmers [Mike Jaros (Peach County, made 8 visits); Hubb Daniel (Evans County, made 9 visits); Robby Brett (Jefferson County, made 13 visits)] across the State of Georgia were involved in the study.
- 2020: On-farm demonstration trial on “Cotton response to varying nutrient stress conditions” study. One farmer, Patti Niewoehner (Brooks County, made 8 visits) was involved in the study.
- 2018: Coordinated research field tour on biodegradable plastic mulch for Washington Recycling Organic Council Board Members; September 23, 2018; Northwestern Washington Research and Extension Center, Washington State University Mount Vernon, WA, United States.

- 2017: Organized a workshop on “Manure spreading, composting, and degradability of biodegradable plastic mulch” for the Pierce County Conservation District; August 28, 2017. Puyallup Research and Extension Center, Puyallup, WA, United States.
- 2017: Assisted in coordinating “Hands-on biodegradable plastic mulch laying” Field Day and Workshop; May 25, 2017. Cloudview Farm, Ephrata, WA, United States.
- 2013-2014: Assisted in organizing summer field day and extension workshop, Sheridan Research and Extension Center, University of Wyoming, Laramie, WY.
- 2013-2014: Coordinated on-farm research trial to investigate the viability of incorporating camelina into wheat-fallow rotation system, Buyok Farm, Ranchester, WY, United States.
- 2012: Coordinated on-farm multi-location rice screening trial in the Ashanti and Volta Regions of Ghana (12 on-farm sites).
- 2009: Assisted in organizing a workshop on fertilizer recommendations for cocoa production; Cocoa Research Institute of Ghana, New Tafo-Akim, Ghana.

Conference/Annual Meeting Proceedings and Abstracts:

Underlined lead author designates work by Dr. Sintim’s student or postdoc advisee

- Amissah, S., Agyei, B.K., **Sintim, H.Y.** 2021. Corn response to secondary and micronutrient application in highly weathered soil conditions. 2021 Annual Meeting of the Southern Branch of the American Society of Agronomy, Virtual Platform, January 30-February 1, 2021.
- Agyei, B.K., Amissah, S., Cabrera, M., Borin, M., **Sintim, H.Y.** 2021. Fertilizer and water scheduling effects on corn under subsurface drip irrigation. 2021 Annual Meeting of the Southern Branch of the American Society of Agronomy, Virtual Platform, January 30-February 1, 2021.
- Sintim, H.Y.**, Bandopadhyay, S., English, M.E., Bary, A., DeBruyn, J. Schaeffer, S., and Flury, M. 2019. Biodegradable plastic mulch effects on soil health. SSSA International Soils Meeting, San Diego, CA, United States; Jan 06-09, 2019.
<https://scisoc.confex.com/scisoc/2019sssa/meetingapp.cgi/Paper/115577>
- Sintim, H.Y.**, Bandopadhyay, S., English, M.E., Bary, A., DeBruyn, J. Schaeffer, S., and Flury, M. 2018. Degradation of biodegradable plastic mulch and impacts on soil health. USDA-SCRI Coordinated Agricultural Project (Award 2014-51181-22382) Annual Meeting, Spokane, WA, May 19-21, 2018.
- Zhang, J., Li, C., **Sintim, H.Y.**, Bary, A., Flury, M., 2018. Biodegradable plastic mulch effects on soil microclimate and water use efficiency. USDA-SCRI Coordinated Agricultural Project (Award 2014-51181-22382) Annual Meeting, Spokane, WA, May 19-21, 2018.
- Sintim, H.Y.**, Bandopadhyay, S., English, M.E., Bary, A., DeBruyn, J. Schaeffer, S., and Flury, M. 2017. Biodegradable plastic mulch: impacts on soil quality and degradation in soil and compost. ASA-CSSA-SSSA Annual Meeting, Phoenix, AZ, Oct 22-25, 2017.
<https://scisoc.confex.com/scisoc/2017am/webprogram/Paper107127.html>.
- English, M.E., Schaeffer, S.M., **Sintim, H.Y.**, Flury, M., Bandopadhyay, S., DeBruyn, J.M., Hayes, D.G., 2017. The Role of Biodegradable Plastic Mulches in Soil Organic Carbon

- Cycling. ASA-CSSA-SSSA Annual Meeting, Phoenix, AZ, Oct 22-25, 2017.
<https://scisoc.confex.com/crops/2017am/webprogram/Paper107565.html>
- DeBruyn, J., Bandopadhyay, S., **Sintim, H.Y.**, English, M.E., Wen, X., Liquey y Gonzalez, J., Schaeffer, S.M., Flury, M., Bonifer, K., Reynolds, T., Hayes, D.G., 2017. Biodegradable plastic agricultural mulches: microbial degradation and implications for soil health. ASA-CSSA-SSSA Annual Meeting, Phoenix, AZ, Oct 22-25, 2017.
<https://scisoc.confex.com/crops/2017am/webprogram/Paper107102.html>.
- Flury, M., **Sintim, H.**, Bary, A., English, M., and Schaeffer, S. 2017. Nanoparticles from degradation of biodegradable plastic mulch. European Geosciences Union General Assembly, Vienna, Austria, Apr. 23-28, 2017.
<http://meetingorganizer.copernicus.org/EGU2017/posters/23005>.
- Sintim, H.Y.** 2017. Biodegradable plastic mulch: degradation and impacts on soil ecology. USDA-SCRI Coordinated Agricultural Project (Award 2014-51181-22382) Annual Meeting, Knoxville, TN, March 20-22, 2017.
- Sintim, H.Y.**, English, M.E., Bary, A., Saglam, M., Schaeffer, S., and Flury, M. 2016. Soil microclimate and degradation of biodegradable plastic mulch. ASA-CSSA-SSSA Annual Meeting, Phoenix, AZ, November 6-9, 2016.
<https://scisoc.confex.com/scisoc/2016am/webprogram/Paper99070.html>.
- Ghimire, S., Wszelaki, A., Moore, J., **Sintim, H.**, Inglis, D., Flury, M., Miles, C. 2016. Biodegradable plastic mulch provided weed control, yield, and quality of pie pumpkin comparable to polyethylene mulch. American Society of Horticultural Sciences (ASHS) Annual Conference, Atlanta, GA, Aug. 8-11, 2016.
<https://ashs.confex.com/ashs/2016/webprogram/Paper23041.html>.
- Ghimire, S., Scheenstra, E., Cowan, J., **Sintim, H.**, Flury, M., Inglis, D., and Miles, C. 2016. Deterioration of Biodegradable Plastic Mulch in Pumpkin Production in Northwest Washington. ASHS Annual Conference, Atlanta, GA, Aug. 8-11, 2016.
<https://ashs.confex.com/ashs/2016/webprogram/Paper23044.html>.
- Hayes, D.G., Wadsworth, L.C., Flury, M., Sintim, H.Y., Miles, C., 2016. Comparison of weathering at two diverse geographic locations and simulated weathering on the physicochemical properties of biodegradable plastic mulches. American Society of Horticultural Sciences (ASHS) Annual Conference, Atlanta, GA, Aug. 8-11, 2016.
<https://ashs.confex.com/ashs/2016/webprogram/Paper23180.html>.
- Sintim, H.Y.**, Bandopadhyay, S., Ghimire, S., Flury, M., Bary, A., Schaeffer, S., DeBruyn, J., Miles, C., and Inglis, D. 2016. Soil quality and colloid transport under biodegradable mulches. European Geosciences Union General Assembly, Vienna, Austria, Apr. 17-22, 2016.
<http://meetingorganizer.copernicus.org/EGU2016/EGU2016-18410.pdf>.
- Schaeffer, S.M., Flury, M., **Sintim, H.Y.**, Bandopadhyay, S., Ghimire, S., Bary, A.I., and DeBruyn, J.M. 2015. Soil physical characteristics and biological indicators of soil quality under different biodegradable mulches. American Geophysical Union Fall Meeting, San Francisco, CA, Dec. 14-18, 2015.
<https://agu.confex.com/agu/fm15/meetingapp.cgi/Paper/75238>.
- Sintim, H.Y.**, Bandopadhyay, S., English, M.E., Ghimire, S., Flury, M., Bary, A., Schaeffer, S., DeBruyn, J., Miles, C., and Inglis, D. 2015. Soil quality, moisture, and temperature

evaluation under different biodegradable mulches. ASA-CSSA-SSSA Annual Meeting, Minneapolis, MN, Nov. 15-18, 2015.

<https://scisoc.confex.com/crops/2015am/webprogram/Paper96666.html>.

Sintim, H.Y., Zhelijazkov, V. D., Obour, A.K., Garcia y Garcia, A. 2015. Camelina response to harvest times and sources of seed yield loss. ASA-CSSA-SSSA Annual Meeting, Minneapolis, MN, Nov. 15-18, 2015.

<https://scisoc.confex.com/crops/2015am/webprogram/Paper93437.html>.

Sintim, H.Y., D.R. Cobos, C.S. Campbell, A.I. Bary, and M. Flury. 2015. Base temperature determination of spring camelina cultivars. ASA-CSSA-SSSA Annual Meeting, Minneapolis, MN, Nov. 15-18, 2015.

<https://scisoc.confex.com/crops/2015am/webprogram/Paper93425.html>.

Sintim, H.Y., Jeliiazkov, V.D. and Obour, A.K. 2015. Camelina (*Camelina sativa* L. Crantz) response to soil moisture variability and harvest time. PNW Oilseed and Direct Seed Conference, Kennewick, WA, Jan 20-22, 2015.

<http://css.wsu.edu/biofuels/files/2015/02/Poster24Jeliiazkov.pdf>.

Sintim, H.Y., Jeliiazkov, V. D., Obour, A.K., Garcia y Garcia, A. and Foulke, T.K. 2014. Optimizing camelina feedstock production for fallow replacement in wheat-fallow rotation. ASA-CSSA-SSSA Annual Meeting, Long Beach, CA, Nov. 2-5, 2014.

<https://scisoc.confex.com/crops/2014am/webprogram/Paper88116.html>.

Sintim, H.Y., Jeliiazkov, V.D., Obour, A.K., Garcia y Garcia, A. and Foulke, T.K. 2014. Camelina as a replacement for fallow in wheat-fallow rotation. ASA-CSSA-SSSA Annual Meeting, Long Beach, CA, Nov. 2-5, 2014.

<https://scisoc.confex.com/crops/2014am/webprogram/Paper87977.html>.

Other Academic Presentations:

Underlined lead author designates presentation by Dr. Sintim's student or postdoc advisee

Griffin, L., **Sintim, H.Y.** 2021. Diagnosing soil-limiting factors of row crop performance to optimize management practices. 2021 CAES Virtual Research Symposium, University of Georgia, Athens, GA, United States.

Sintim, H.Y. 2020. Are secondary and micronutrients limiting corn yield potential in Georgia? Georgia Corn Commission 2020 Research Report and 2021 Proposal Justification; December 15, 2020; Tifton, GA, United States.

Sintim, H.Y. 2020. The interaction of plant population and fertilizing by yield goal with implications on tissue sampling results. Georgia Corn Commission 2019 Research Report and 2020 Proposal Justification; January 17, 2020; Tifton, GA, United States.

Sintim, H.Y. 2019. Identifying prospective advisors for a graduate program. Graduate School Workshop for Undergraduates; November 11, 2019; ASA-CSSA-SSSA Annual Meeting, San Antonio, TX, United States.

Professional Membership:

2017-Present: American Association for the Advancement of Science (AAAS), Washington D.C., United States.

- 2017-Present: Water, Energy, and Food Nexus in Africa, The Pennsylvania State University, University Park, PA, United States.
- 2014-Present: Alliance of Crop, Soil, and Environmental Science Societies (ASA-CSSA-SSSA), Madison, WI, United States.
- 2014-Present: Gamma Sigma Delta- The Honor Society of Agriculture, Wyoming Chapter, Laramie, WY, United States.
- 2014-Present: Golden Key International Honor Society, Atlanta, GA, United States.
- 2007-2011: Agricultural Students Association, Faculty of Agriculture, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.
- 2003-2006: Science and Maths club, Armed Forces Sec. Tech. Sch., Accra, Ghana.

Scientific Journal Reviews (22 total; 11 since August 2019):

The number of manuscripts reviewed is italicized in parenthesis

- Agronomy Journal, Publication of American Society of Agronomy; Madison, WI, United States (5 reviews).
- Agriculture, Ecosystems and Environment, Publication of Elsevier, Amsterdam, Netherlands (3 reviews)
- Agronomy, Publication of MDPI, Basel, Switzerland (2 reviews).
- ACS Sustainable Chemistry & Engineering, Publication of American Chemical Society, Washington, D.C., United States (2 reviews).
- Geoderma, Publication of Elsevier, Amsterdam, Netherlands (3 reviews).
- Soil Research, Publication of CSIRO Publishing, Clayton, Australia (1 review).
- Environmental Science and Pollution Research, Publication of Springer, Berlin, Germany (1 review).
- Journal of Environmental Quality; Publication of the Tri-Society (ASA-CSSA-SSSA), Madison, WI, United States (1 review).
- Science of the Total Environment; Publication of Elsevier, Amsterdam, Netherlands (2 reviews).
- Scientific Reports, Publication of Nature, Macmillan Publishers, New York, NY, United States (1 review).
- Journal of Hydrology, Publication of Elsevier, Amsterdam, Netherlands (1 review).

Professional Leadership Services:

- 2020: Chair - ACS Graduate School Workshop Committee; Alliance of Crop, Soil, and Environmental Science Societies.
- 2018-2019: Member as the ASA Representative - ACS Graduate School Workshop Committee; Alliance of Crop, Soil, and Environmental Science Societies.
- 2018: Planning Committee Member - Compost Facility Operators Training, Washington Recycling Organic Council.
- 2016-2017: Member as the Graduate Student Representative - CSSA Board of Directors; Crop Science Society of America.

- 2016-2017: Academic and Social Coordinator, Puyallup Research & Extension Center Graduate Student Association; Washington State University.
- 2016-2017: Member as ASA Representative – ACS Graduate Student Subcommittees (served on Communicating Science Workshop; Elevator Speech Context; ACS Graduate Student Leadership Conference (was subcommittee chair in 2016); ACS Graduate Student Networking subcommittees); Alliance of Crop, Soil, and Environmental Science Societies.
- 2015-2017: Member as CSSA Representative – ACS Graduate Student Committee; Alliance of Crop, Soil, and Environmental Science Societies.
- 2015-2017: Member as the Student Representative - Safety Committee Member, Puyallup Research and Extension Center, Washington State University.
- 2015: Co-organizer and Moderator of Soil Physics and Hydrology sessions I (oral session) and II (poster session), ASA-CSSA-SSSA Annual Meeting, Minneapolis, MN, November 15-18, 2015.
- 2009 -2011: Executive member, PENSA-KNUST, Kumasi, Ghana.
- 2008 -2009: Executive member, Agricultural Christian Fellowship, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.
- 2005 -2006: President, Scripture Union, Armed Forces Sec. Tech. Sch., Accra, Ghana.

Awards/ Fellowships/ Scholarships/ Honours:

To Dr. Henry Sintim

- 2020: Highly Cited Paper Recognition. Top 1% of highly cited papers in Environment/Ecology Discipline for Sintim et al. (2019) paper, “Impact of biodegradable plastic mulches on soil health.” Essential Science Indicators, Web of Science, Clarivate, Philadelphia, PA, United States.
- 2017: GPSA Excellence Award for outstanding performance as a Research Assistant, 2016/2017 academic year, Graduate School, WSU, Pullman, WA.
- 2017: Roscoe and Frances Cox Scholarship, Washington State University, Pullman, WA, United States.
- 2016-2017: Mug Award for the first author of a refereed journal paper by graduate students, Department of Crop and Soil Sciences, Washington State University, Pullman, WA, United States.
- 2016: O. A. Vogel Washington State Crop Improvement Association Scholarship, Washington State University, Pullman, WA, United States.
- 2016: First Place, Graduate Student Oral and Poster Competition, Soil Physics and Hydrology Division, ASA-CSSA-SSSA Annual Meeting, Phoenix, AZ, November 6-9, 2016.
- 2015: ASA Travel Award, Department of Crop and Soil Sciences, Washington State University, Pullman, WA, United States.
- 2015: Washington Recycling Organic Council Scholarship for Compost Facility Operators Training, Puyallup, WA.
- 2015: GA Harris Fellowship, Decagon Devices (now Meter Group Inc.), Pullman, WA.
- 2014: Summer Graduate Scholarship, University of Wyoming, Laramie, WY.
- 2012: Developing Solutions Scholarship (Ref No: 13158), The University of Nottingham, Nottingham, United Kingdom.
- 2010: College of Agriculture and Natural Resources Bursary, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.

To Dr. Sintim Mentees

- 2022: Using simple tools to conduct on-farm soil health assessment. Graduate School Communication of Research and Scholarship Grant, University of Georgia (\$1,370 grant award; Recipient–Ankomah, G).
- 2021: First Place in Section 2 of the CAES Virtual Research Symposium (\$600 cash prize). University of Georgia, Athens, GA, United States (Recipient–Griffin, L).
- 2021: Diagnosing soil-limiting factors of row crop performance to optimize management practices. CAES Undergraduate Research Symposium Grant, University of Georgia (\$1,000 grant award; Recipient–Griffin, L).

Training/ Professional Events as Participant:

- 2020: Promotion and Tenure Procedures Workshop. Office of Faculty Affairs, University of Georgia, Tifton, GA, United States; December 7, 2020.
- 2020: Faculty Search Committee Training Workshop. Office of Faculty Affairs, University of Georgia, Tifton, GA, United States; October 7, 2020.
- 2020: Onsite Fertilizer Production & the Future of Agriculture. Texas Tech University, Lubbock, TX, United States; July 28-29, 2020.
- 2017: DSSAT Workshop: “Assessing Crop Production, Nutrient Management, Climatic Risk, and Environmental Sustainability with Simulation Models.” University of Georgia, Griffin, GA, United States; May 15-20, 2017.
- 2017: Science Communication Workshop. Puyallup Research & Extension Center Graduate Student Association, Washington State University, Puyallup, WA, United States; November 27, 2017.
- 2015: ACS Graduate Student Leadership Conference, ASA-CSSA-SSSA, Minneapolis, MN, United States; November 14-15, 2015.
- 2015: Compost Facility Operators Training, Washington Recycling Organic Council, Puyallup, WA, United States; October 19-23, 2015.
- 2015: Workshop on “Data Analysis with R,” Puyallup Research & Extension Center, Puyallup, WA, United States; May 25-27, 2015.
- 2013: Radiation Safety Training, Environmental Health & Safety, University of Wyoming, Laramie, WY, May 09-10, 2013.
- 2008-2012: Student Outreach (volunteered at least once a year, spanning 1-2 weeks) with Ghana Fellowship of Evangelical Students, Pentecost Students and Associates, Apostolic Student Association, and Victory International Student Association.
- 2005: National Leadership Conference for High Schools, Ghana Scripture Union, Achimota Secondary School, Accra, Ghana, May 2-6, 2005.

News/ Features:

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