University of Vermont Extension 264 Jeffords Hall, 63 Carrigan Dr.,

Gardezi, M., E. Prutzer, D. Rizzo, M. Emery, S. Merrill, B. Ryan, P. Oikonomou, J. Alvez, D. Adereti, K. Almen, R. Anjum, A.R. Badireddy, D. Bhattarai, S. Brugler, N. Cheney, D. Clay, S. David, A. Dadkhah, J.W. Faulkner, D. Joshi, C. Koliba, J. McMaine, S. Michael, S. Musayev, Sardorbek, J. O'Neil-Dunne,

precision agriculture innovation: Lessons from an interdisciplinary research team. *Big Data & Society*.

- Battaglia, M., Ros, M., Easton, Z.M., Faulkner, J.W., Collick, A., Berbero, M., Twombly, C., Fuka, D., Czymmek, K., and Ketterings, Q. Watershed Modeling of Beneficial Management Practices for Regional Phosphorus Index Evaluation. *Journal of Environmental Quality*.
- White, A.C., Faulkner, J.W., Niles, M.T., Conner, D.S., Mendez, V.E. Accepted. The role of farmer networks in supporting adaptive capacity: Opening the door for innovation and transformation in the Northeastern US *Elementa*.
- Ruhl, L., Tuna, M., Darby, H. and Faulkner, J.W. Three Cover Crop Establishment Studies to Assess Optimal Cover Crop Species, Planting Date, and Seeding Method. *Journal of Balkan Science and Technology*.

Garna, RK, Fuka, D.R, Faulkner, JW., Collick, A.S, Easton, ZM. 2023. Watershed Model Parameter

White, A.C., Faulkner, J.W., Conner, D.S., Mendez, V.E., and M.T. Niles. 2022.

of Soil and Water Conservation. 77(2). doi: https://doi.org/10.2489/jswc.2022.00041

- Ruggiero R, Ross D, Faulkner JW. 2022. Tile Drainage Flow Partitioning and Phosphorus Export in Vermont USA. *Agriculture*. 12(2):167. <u>https://doi.org/10.3390/agriculture12020167</u>
- Nordstrom, KL, C.E. Horner, V.E. Méndez, V. Izzo, N. Carpenter, J.W. Faulkner and M. Caswell. 2022. An Undergraduate Agroecology Research Fellows Program Engages Co-learning Through Participatory Action Research. Frontiers in Sustainable Food Systems 5:10.3389/fsufs.2021.760995
- Horner Œ, Morse C, Carpenter N, Nordstrom KL, Faulkner JW, Mares T, Kinnebrew E, Caswell M, Izzo V, Méndez VE, Lewins SA and McCune N. 2021. Cultivating Pedagogy for Transformative Learning: A Decade of Undergraduate Agroecology Education. *Front. Sustain. Food Syst.* 5:751115. doi: 10.3389/fsufs.2021.751115
- White, A.; Faulkner, J.W.; Conner, D.; Barbieri, L; Adair, E.C.; Niles, M.T.; Mendez, V.E.; Twombly, C.R. 2021. Aveme-3(Rese)tProg3(in)-4h A

- Mason, R., M.T. Niles, SC. Merrill, J. Gorres, and J.W. Faulkner. 2021. Using Agricultural Models to Inform Policy: Discussion Points for Researchers and Policymakers. *Journal of Soil and Water Conservation.* 76(1):10A-14A; DOI: <u>https://doi.org/10.2489/jswc.2021.0917A</u>
- Sarazen, J.C., J.W. Faulkner, and S.E. Hurley. 2020. Evaluating nutrient removal performance of a denitrifying woodchip bioreactor treatment system receiving silage bunker runoff. *Applied Sciences*. 10:4789.
- Mason, R, J Gorres, SC Merrill, JW. Faulkner, L Doro, and M. T. Niles. 2020. Calibrating the APEX model for simulations of environmental and agronomic outcomes on dairy farms in the Northeast US A step-by-step example. *Applied Engineering in Agriculture*. 36(3):281-301.
- Shrestha, P, J.W. Faulkner, J Kokkinos, and S Hurley. 2020. Bioretention systems for stormwater treatment in dairy farm production area: influences of low-phosphorus compost and P. virgatum on nutrient and sediment retention. *Ecological Engineering*. https://doi.org/10.1016/j.eco-.47 Tm0 g0 G[u)5(t)-4(rient)-6(a)9(n)-4(d)5()-3(32.75 Tm756a,)5(P,)-6(JW. Fa)

Faulkner, J.W., Z.M. Easton, W. Zhang, L.D. Geohring, T.S. Steenhuis. 2010. Design and risk assessment

Turn the tap: Integrated research to support sustainable irrigation practices on northeast vegetable farms, (PI), USDAVSARESRESSEARCHEDT/IN2/VA2/App002achest37 SL537aTmablge/Ag((IEL))/5((r.)-, 3(UISD)202A)]TJCID1 (\$124,982)

Improving our understanding of interactions among BMPs, tile drainage, and Plosses in subsurface and surface runoff, (PD), Lake Champlain Sea Grant, 2019-2021 (\$149,997)

Evaluating Alternative Runoff Management Practices for VT Dairy Farm Production Areas, (Co-PI), Vermont Agricultural Experiment Station Competitive Hatch Award, 2018-2021 (\$29,775)

Development of an Approach and Tool to Optimize Farm-Scale Phosphorus Management and Achieve Watershed Scale Loading Targets, (Co-PI), Lake Champlain Basin Program, 2017-2018, (\$189,945)

The Next Generation of Controlled Drainage for Preventing Tile Phosphorus Loss, (PI), Vermont Agency of Agriculture Clean Water Initiative Grant, 2017-2019 (\$46,106)

The Climate Adaptation Fellowship: A Collaborative Design Project, (PD), USDA-NIFA Agriculture and Food Research Initiative, 2017-2018 (\$248,959).

Revising and Implementing Phosphorus Indices to Protect Water Quality in the Northeastern US, (Co-PI), USDA-NRCS Conservation Innovation Grant, 2016-2019 (\$45,000)

Revision of the Vermont Phosphorus Index for Improved Nutrient Management and Water Quality, (PI), USDA

Linking bench-scale evaluation and field-scale application of thermally-treated biomass media in livestock heavy-use areas for reducing environmental impacts of agriculture, (PI), WVU Faculty Senate Research Grants, 2013-2014 (\$31,495)

Refining and Harmonizing Phosphorus Indices in the Chesapeake Bay Region to Improve Critical Source Area Identification and to Address Nutrient Management Priorities, (Co-PI), USDA-NRCS Conservation Innovation Grant, 2012-2015 (\$801,535)

Development of 21st Century Agriculture for Water Quality Protection, (Co-PI), USDA-NIFA Agriculture and Food Research Initiative (AFRI) Program, 2012-2015 (\$466,000)

Professional Development for Agriculture Service Providers in Pollution Discharge Elimination Systems, (Co-I), Northeast Sustainable Agriculture Research and Education (SARE) Professional Development Grant Program, 2012-2014 (\$26,699)

-PI), US-EPA Chesapeake Bay Program Chesapeake Bay Implementation Grant, 2011-2012 (\$83,000)

Chesapeake Bay Total Maximum Daily Load and Watershed Implementation Plan Science and Policy -EPA Chesapeake Bay Program Chesapeake

Bay Implementation Grant, 2011-2012 (\$10,400)

Guidelines for Sting Effective Riparian Forest Buffers, (Co-I), Mid-Atlantic Water Program, 2010-2012 (\$40,000)

Investigation of Vegetative Treatment Systems for Wood Chip Feeding Area Effluent, (PI), WVU Extension Service Seed Grant for Research, 2009-2010 (\$2,796)

White, A., H. Darby, J.W. Faulkner, L. Ruhl, J. Sanders, R. Maden, H. Emick, K. Workman, I. Krezinski, R. Malone, J. Bruce, C. Davidson, S. Ziegler, J. Bryne, J. Michaud, M. Smith, J. Peck, H. Soloman, E. Lane, C. Hicks Pries, J. Arace, L. Hancock, B. Kretzler, B. Bergman, K. Williams, and M.

Neher, Deborah; Horner, Katie; von Wettberg, Eric Bishop; Scarborough, Matt; Harris, Jeanne; Darby, Heather M.; Badireddy, Appala Raju; Roy, Eric D.; Farley, Joshua C.; Faulkner, Joshua W.; and White,

Barnett, A. Stanfield, R.W. Malone, T.E. Gilmore, A. Mittelstet, S.K. Hamilton, D. Weed, K.R. Elkin, A.R. Buda, T. Troutman, J.W. Faulkner, M. Kelting, L.T. Johnson, J. Boehler, K.W. King, D.L. Busch, M.W. Sandstrom, M. Riskin, and C.J. Lee. 2023. USDA Watershed Lag Time Project: Use of a Cropland Specific Transient Tracer for Characterizing the Hydrology of Agricultural Watersheds. 78th Soil and Water Conservation Society International Annual Conference. August 6-9, 2023. Des Moines, Iowa.

Faulkner, J.W. 2023. Soil Health and Water Quality Research Update. 2023 UVM No-till and Cover Crop Conference. March 2, 2023. Burlington, VT.

- Faulkner, J.W., and R. Maden. 2023. Vermont Water Usage and Irrigation Research. Vermont Vegetable and Berry Growers Association Annual Conference. January 24, 2023. Montpelier, VT.
- Bondeson, F., J.W. Faulkner, and E. Roy. 2022. Performance of a Compost Aeration and Heat Recovery System at a Commercial Composting Facility. Northeast Agricultural and Biological Engineering Conference, July 31 August 3. Edgewood, MD.
- Bondeson, M., J.W. Faulkner, E. Roy, and M. Stoermann. 2022. Evaluation of Agricultural Nutrient Management Technologies at Vermont Natural Ag Products, Middlebury, Vermont. 77th Soil and Water Conservation Society International Annual Conference, July 31 August 3. Denver, CO.
- Bondeson, F., J.W. Faulkner, and E. Roy. 2022. Performance of a Compost Aeration and Heat Recovery System at a Commercial Composting Facility. American Ecological Engineering Society Annual Meeting, June 21-23. Baltimore, MD.
- Faulkner, J.W. 2022. Lake Champlain Basin Conservation Effects Assessment Project (CEAP) in Vermont. NEWPCC Nonpoint Source Conference, April 27, 2022. Woodstock, VT.
- Bondeson, F., J.W. Faulkner, E. Roy, and M. Stoermann. 2022. Evaluation of Agricultural Nutrient Management Technologies at Vermont Natural Ag Products, Middlebury, Vermont. Waste to Worth, April 18-22. Oregon, OH.
- Garna R, D. Fuka, R. White, J.W. Faulkner, E. Buell, B. Roqueto dos Reis, A. Collick, B. Asfaw, S. Mehzabin, and Z. Easton. 2021. Watershed Model Parameter Estimation in Low Data Environments. AGU Fall Meeting, December 13-17, 2021. New Orleans, LA and Virtual.
- Ketterings, Q., K. Czymmek, M. Ros, M. Battaglia, D. Beegle, P. Kleinman, J.W. Faulkner, A. Collick, J. Carter, Z. Easton, M. Hashemi, T. Morris. 2021. Revising and Implementing Phosphorus Indices to Protect Water Quality in the Northeastern US 76th SWCS Annual International Conference, July 26-28, 2021. Virtual.
- Ruggiero, R and J.W. Faulkner. 2021. Characterizing P Export Pathway To Agricultural Tile Drains In Vermont. Northeast Agricultural and Biological Engineering Conference, July 26-27, 2021. Virtual Meeting.

Faulkner, J.W., T. Basden, J. Steele, D. Seymour, and M. Bennett. 2012. Innovative strategy for gaining agricultural stakeholder input to inform watershed planning in the Chesapeake Bay. 2012 Land Grant and Sea Grant National Water Conference, May 20-

Schattman, R, H. Jean, J.

Faulkner, J.W. 2009. Small Farms and Conservation: Why?. West Virginia Small Farm Advocate. Summer Edition.

Agriculture, Climate Change, and Water Quality in Vermont. Jan. 12, 2023. Vermont Department of Environmental Conservation Clean Water Conversation Series. Virtual.

What to Do About Too Much Water?!. Jan. 5, 2023. University of Maine Extension Winter Webinar Series. Virtual.

Impacts of Climate Change on Agriculture and Ecology. Dec. 12, 2022. Vermont League of Women Voters Panel Series. Virtual.

Climate Change and Water Quality Research on Vermont Dairy and Livestock Farms at Multiple Scales. Oct. 21, 2022. UVM Animal Biosciences Fall Seminar Series. Burlington, VT.

Virtual.

Building Resilient Farms for Water Quality and Changing Climate. Sept. 1, 2022. Orleans County Agricultural Stakeholder Meeting. Newport, VT.

The Lake Champlain Basin Conservation Effects Assessment Project. May 2, 2022. Vermont Agricultural Water Quality Partnership Science Advisory Meeting. Virtual.

Increasing Our Understanding of Tile Drainage Hydrology and Phosphorus Losses in Subsurface and Surface Runoff from Farm Fields in the Lake Champlain Basin. February 23, 2022. Lake Champlain Sea Grant Research Seminar Series. Virtual.

On-Farm Water Quality Research and Networking for Qimate Resiliency. February 10, 2022. On-Farm Applied Research and Monitoring (ONFARM) Forum 2022. Virtual.

UVM Extension Climate Change and Grazing Research. Vermont Grazing and Livestock Conference. January 21, 2022. Virtual.

Climate Change and Agriculture in Vermont: Building Resilience. October 13, 2021. UVM OLLI Distinguished Lecture Series. Virtual.

Basics of N and P for Water Quality. Vermont Vegetable and Berry Growers Winter Webinar Series. February 17, 2021. Virtual.

Tile Drainage Research in Vermont. University of Maine Certified Crop Advisors In-Service Training. January 28, 2021. Virtual.

Climate Change: Observations and Localized Impacts in the Northeast. Climate Adaptation Fellowship Kick-off Workshop. January 12, 2021. Virtual.

Creating a Climate and Environmentally Resilient Food System. Vermont Farm-2-Plate Network Annual Gathering. October 12, 2020. Virtual.

Applied research and outreach at the intersection of agriculture, dimate change, and water quality in Vermont. Gund Institute for Environment GundxChange Seminar Series. October 2, 2020. Virtual.

Irrigation Efficiency and Soil Moisture Monitoring Technology. UMass Agricultural Water Virtual Twilight Series. September 16, 2020. Virtual.

Tile Drainage and Nutrient Loss: Basics and Ourrent Research. Vermont Agricultural Water Quality Partnership Science Advisory Committee. September 11, 2020. Virtual.

Models, Measurements, and Agriculture. Famers Watershed Alliance Precision Agriculture Forum. March 12, 2020. St. Albans, Vemont.

Climate Change and Agricultural Resilience in New England. New Brunswick Soil and Crop Improvement Association 41st Annual Meeting. February 21, 2020. Woodstock, New Brunswick, Canada.

When it Rains it Pours: Drainage Principles and Practice. Association Winter Meeting. January 3, 2020. Hadley, MA.

Tile Drainage Research: Ourrent and Future Paired-Watershed Studies. Vermont Tile Drainage Advisory Group 2019 Meeting. December 20, 2019.

Improving Our Understanding of Interactions among BMPs, Tile Drainage, and PLosses in Subsurface and Surface Runoff. Lake Champlain Sea Grant Seminar Series. October 30, 2019. Burlington, VT.

Dairy Farming, Resilience, and a Changing Climate. Dairy Sheep Association of North American 2019 Symposium. November 7, 2019. Idaho Falls, ID.

Climate Resilient Agriculture in Vermont. 2019 Vermont Housing and Conservation Board Conference. October 10, 2019. Barre, VT.

Climate Change and Agricultural Resilience in Vermont. Bennington College Public Policy Forum Series. September 26, 2019. Bennington, VT.

Climate Change and Agricultural Resilience in New England. 2019 Island Agrology Workshop. August 19, 2019. Stanley Bridge, Prince Edward Island, Canada.

Dairy Farming, Climate Change, and the Marketplace. American Cheese Society Annual Conference. August 2, 2019. Richmond, VA.

The Vermont Phosphorus Index, Tile Drainage Research, and Edge-of-Field Monitoring Results. Vermont

Phosphorus, Farmland, and Best Management Practices. Franklin Watershed Committee Annual Meeting. August 18, 2016. Franklin, VT.

Climate Change and Agriculture: A Soil and Water Perspective. Watershed Navigators of Northwestern Vermont. August 17, 2016. St. Albans, VT.

Resilient Vermont: A Soil and Water Perspective. Resilient Vermont 2016 Conference. May 19, 2016. Norwich, VT.

Drainage and Water Management for Small Scale Vineyards. 2016 Northeastern NY and VT Grape School. March 17, 2016. Lake George, NY.

Working Lands Leaders Panel. Vermont Climate Economy Summit: Ideas to Action. Feb. 22, 2016. Randolph, VT.

Drainage and Water Management on Vermont Farms. Vermont Tree Fruit Growers Association Annual Meeting. Feb. 18, 2016. Middlebury, VT.

Land Improvement Practices for Enterprise Establishment. Northeast Organic Farming Association-VT Winter Conference. Feb.13, 2016. Burlington, VT.

Soil Compaction: Causes, Effects, and Ways to Address It. VSJF Farm2Plate Annual Gathering. Oct. 29, 2015. Killington, VT.

Landscape Resilience in an Era of Climate Change Presentation and Panel. 2015 Vermont Housing and Conservation Board Conference. October 6, 2015. Burlington, VT.

Vermont Agriculture and Climate Change: Building Resiliency. Intervale Center. September 16, 2015.

Agriculture, the Environment, and Climate Change. Agricultural Medicine and Occupational Safety Training. September 11, 2015. Middlebury, VT.

Climate Change Considerations for Christmas Tree Production in New England. New Hampshire Vermont Christmas Tree Association Summer Meeting. June 27, 2015. Huntington, VT.

Climate Change and Agriculture Extension in Vermont. Extension Advisory Committee Meeting. March 31, 2015. Burlington, VT.

Tile Drainage to Improve Soil Productivity. Vermont Vegetable and Berry Growers Association Annual Meeting. January 21, 2015. Fairlee, VT.

Climate Change, Farming, and Energy Considerations in Vermont. Vermont Community Energy and Climate Action Conference. December 12, 2014. Fairlee, VT.