ANNA K. WALLINGFORD

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129 Main St.
Durham, NH 03824

EDUCATION

PhD	Virginia Tech, Entomology	2012
MS	Virginia Tech, Entomology	2008
BS	Virginia Tech, Horticulture	2004

WORK EXPERIENCE

University of New Hampshire, Durham, NH — 2022 to present
Research Assistant Professor, Department of Agriculture Nutrition & Food Systems, New Hampshire Agricultural Experiment Station

University of New Hampshire, Durham, NH — 2018 to 2022
Entomology Specialist & State IPM Coordinator, Cooperative Extension

Virginia Tech/USDA Agricultural Research Service, Beltsville, MD — 2017 to 2018
Post-doctoral Associate

Cornell University, Geneva, NY — 2013 to 2017
Post-doctoral Associate

USDA Agricultural Research Service, Parlier, CA — 2012 to 2013
Post-doctoral Associate

PROFESSIONAL SERVICE & MEMBERSHIPS

Editorial Roles

New England Vegetable Management Guide, Entomology Subject Editor
New England Small Fruit Management Guide, Entomology Subject Editor
New England Tree Fruit Management Guide

Coordinating Committees, Working Groups, & Advisory Panels

Northeast Regional Committee on Integrated Pest Management (NEERA 1604)
Northeast IPM Center Advisory Council
National IPM Coordinating Committee (NIPMCC)
Northeast Coordinating Committee on High Tunnel Specialty Crop Production (NECC2103)
Northeast Tree Fruit IPM Working Group
Northeast Vegetable Pest Alerts Working Group

Professional Memberships

Entomological Society of America (2005-present)
Eastern Branch Secretary 2022-present

FUNDED WORK

Active

USDA-NIFA-SCRI-SREP $3.2 million. Optimizing pest management in high tunnels to increase the resiliency of local food systems. 4 yr – Co-PI (Purdue, U of Illinois).

USDA-NIFA-EIP-IPM, $548,505. Integrated Pest Management Extension Implementation Plan for New Hampshire (2022), 3 yrs – PI

NESARE Novel Approaches, $180,375. Attract-and-kill for sustainable striped cucumber beetle management, 3 yrs – PI (UVM, USDA-ARS)

NHAES Hatch, $59,327, Integrated pest management (IPM) for insect pests of fruits and vegetables grown in New England, 3 yrs – PI

Submitted & Pending

USDA-NIFA-OREI $1.9 million. NET Gains: Novel exclusion techniques, benefits and trade-offs for pest management. 4 yr – PI (UVM, UMaine)

USDA-NIFA-SCRI-SREP $2.5 million. Addressing evolving corn earworm management challenges in sweet corn grown in the Eastern US. 4 yr – Co-PI (UMD, UDel, Cornell, VT, Rutgers)

USDA-NIFA Organic Transitions $750,000. Protected agriculture for organic fire blight management in the east. 4 yr – Co-PI (CTAES)

NH Specialty Crop Block Grant $75, 368. Pink lady beetle husbandry: Piloting a "NH Made" biological control industry. 2 yr - PI

NH State IPM $29,322. *Ganaspis brasiliensis*: biological control for spotted wing drosophila. 1 yr - PI

NH State IPM $28,954. Winter cutworm: developing a monitoring tool for predicting infestation risk. 1 yr - PI

PRESENTATIONS AND INVITED LECTURES (PAST 5 YEARS)

Invited Lectures

Wallingford, A.K., R.G. Sideman, R. Smith 2022. Protected agriculture working group at UNH. Department of Agriculture, Nutrition, & Food Systems Departmental Seminar, November 2022.

Wallingford, A.K. 2021. Robust manipulations of pest insect behavior. Plant Interactions Group (PIG). Cornell University, Ithaca, NY, September 2021.

Wallingford, A.K. 2019. Winter biology of *Drosophila suzukii*. University of Maine, School of Biology and Ecology Fall Seminar Series, Orono, ME, September 2019.

Invited Presentations

Wallingford, A., S. Lewins, V. Izzo, and D. Weber. 2023. Regulatory barriers to adoption of behavioral controls. *In* Member symposium: Current Issues in Agricultural Pest Management. Eastern Branch Annual Meeting of the Entomological Society of America. Providence, RI, March 2023.

Hazelrigg, A., and **A.K. Wallingford.** 2022. Insect and Disease Updates in Winter Growing. New England Vegetable & Fruit Conference, Manchester, NH, December 2022.

Wallingford, A.K., and S. Palmer. 2022. Effective Pest Management Strategies. Maine Organic Farmers & Gardeners Association Farmer to Farmer Conference. Belfast, ME, November 2022.

Wallingford, A. 2021. How I learned to stop worrying and love the Logic Model. *In* Member symposium: Thriving in a Diverse Workplace: Build/Improve Your Hard and Soft Skills to Help You Increase Your Success in Entomology. Virtual Southeastern Branch Annual Meeting of the Entomological Society of America. March 2021.

Wallingford, A., D. Cha, and G. Loeb. 2020. Robust manipulations of insect behavior using repellents. Entomol. Soc. Am. Eastern Branch Annual Meeting (cancelled) April 2020.

Wallingford, A.K., A. Bier, and D.C. Weber. 2019. Directing harlequin bug movement for vegetable pest management. Entomol. Soc. Am. Annual Meeting, St. Louis, MO, November 2019.

Cabrera Walsh, G., **A.K. Wallingford**. A. Khrimian, and D. C. Weber. 2019. Combination of plant and insect semiochemicals for management of chrysomelid vegetable pests. Entomol. Soc. Am. Annual Meeting, St. Louis, MO, November 2019.

Tholl, A.K., J. Lancaster, B. Lehner, A. Khrimian, S. Kumar Ghosh, **A. Wallingford**, D.C. Weber, M.E. Sparks, D. Gundersen-Rindal, and T. Kuhar. 2019. Understanding pentatomid pheromone biochemistry for developing new pest management strategies. Entomol. Soc. Am. Annual Meeting, St. Louis, MO, November 2019.

PUBLICATIONS

Peer Reviewed

Harris-Cypher, A.*, C. Roman, G. Higgins, S. Scheufele, A. Legrand, **A. Wallingford**, R. Grube Sideman. 2023. A field survey of syrphid species and adult densities on annual flowering plants in the northeastern United States. Environmental Entomology 52: 175-182.

Weber, D.C. A.S. Konstantinov, A. Khrimian, A.D. Bier, L.A. Lubenow, J.J. Knodel, A.I. Haber, **A.K. Wallingford**, J.A.C. Mason, and T.P. Kuhar. 2022. Trapping of crucifer-feeding flea beetles (Phyllotreta spp.)(Coleoptera: Chrysomelidae) with pheromones and plant kairomones. Journal of Economic Entomology 115: 748-756.

Brzowski, L., M. Mazourek, D.C. Weber, **A. Wallingford**, and A. Agrawal. 2022. Tradeoffs and synergies in management of two co-occurring specialist squash pests. Journal of Pest Science 5: 1-12.

Tait, G., S. Mermer, D. Stockton, J. Lee, S. Avosani, A. Abrieux, G. Anfora, E. Beers, A. Biondi, H. Burrack, D. Cha, J.C. Chiu, M.Y. Choi, K. Cloonan, C.M. Crava, K.M. Daane, D.T. Dalton, L. Diepenbrock, P. Fanning, F. Ganjisaffar, M.I. Gómez, L. Gut, A. Grassi, K. Hamby, K.A. Hoelmer, C. Ioriatti, R. Isaacs, J. Klick, L. Kraft, G. Loeb, M.V. Rossi-Stacconi, R. Nieri, F. Pfab, S. Puppato, D. Rendon, J. Renkema, C. Rodriguez-Saona, M. Rogers, F. Sassù, T. Schöneberg, M.J. Scott, M. Seagraves, A. Sial, S. Van Timmeren, **A. Wallingford**, X. Wang, D.A. Yeh, F.G. Zalom, V.M. Walton. 2021. *Drosophila suzukii* (Diptera: Drosophilidae): A decade of research towards a sustainable integrated pest management program. Journal of Economic Entomology 114: 1950-1974.

Bier, A.D., **A.K. Wallingford**, A.I. Haber, M.V. Herlihy-Adams, and D.C. Weber. 2021. Trap cropping harlequin bug: distance of separation influences female movement and oviposition. Journal of Economic Entomology 114: 848-856.

Cha, D.H., G.H. Roh, S.P. Hesler, **A. Wallingford**, D.G. Stockton, S.K. Park, and G.M. Loeb. 2021. 2-Pentylfuran: a novel repellent of *Drosophilia suzukii*. Pest Management Science 77: 1757-1764.

Dively, G.P., T.P. Kuhar, S. Taylor, H.B. Doughty, K. Holmstrom, D. Gilrein, B.A. Nault, J. Ingerson-Mahar, J. Whalen, D. Reisig, D.L. Frank, S. Fleischer, D. Owens, C. Welty, F. Reayjones, P. Porter, J. Smith, J. Saquez, S. Murray, **A. Wallingford**, H. Byker, B. Jensen, W. Hutchison, E. Burkness, and K. Hamby. 2021. Sweet corn sentinel monitoring for lepidopteran resistance to *Bt* toxins. Journal of Economic Entomology 114: 307-319.

Haber, A.I., **A.K. Wallingford**, I.M. Grettenberger, J.P. Ramirez Bonilla, A.C. Vinchesi-Vahl, and D.C. Weber. 2021. Striped cucumber beetle (*Acalymma vittatum* (F.)) and Western striped cucumber beetle (*Acalymma trivittatum* (Mannerheim)) (Coleoptera: Chrysomelidae). Journal on Integrated Pest Management. 12:1.

Stockton, D.G., **A.K. Wallingford**, D.H. Cha, G.M. Loeb. 2020. Automated aerosol puffers effectively deliver 1-octen-3-ol, an oviposition antagonist useful against spotted-wing drosophila. Pest Management Science: https://doi.org/10.1002/ps.6028.

Cha, D.H., S.P. Hesler, G. Brind'Amour, K.S. Wentworth, S. Villani, K.D. Cox, M.T. Boucher, **A. Wallingford**, S.K. Park, J. Nyrop, and G.M. Loeb. 2020. Behavioral evidence for contextual olfactory-mediated avoidance of the ubiquitous phytopathogen *Botrytis cinerea* by *Drosophila suzukii*. Insect Science 27: 771-779.

Stockton, D.G., **A.K Wallingford**, G. Brind'amore, L. Diepenbrock, H. Burrack, H. Leach, R. Isaacs, L.E. Iglesias, O. Liburd, F. Drummond, E. Ballman, C. Guedot, J. Van Zoeren, and G.M. Loeb. 2020. Seasonal polyphenism of spotted-wing *Drosophila* is affected by variation in local abiotic conditions within its invaded range, likely influencing survival and regional population dynamics. Ecology and Evolution 10: 7669-7685.

Piñero, J.C., D. Shapiro-Ilan, D.R Cooley, A.F. Tuttle, A. Eaton, P. Drohan, K. Leahy, A. Zhang, T. Hancock, **A.K. Wallingford**, T.C. Leskey. 2020. Toward the integration of attract-and-kill approach with entomopathogenic nematodes to control multiple life stages of plum curculio. Insects 11: 375.

Stockton, D.G., S. Hesler, **A.K. Wallingford**, T.C. Leskey, L. McDermott, J.E. Elsensohn, D.I. Riggs, M. Riggs, and G.M. Loeb. 2020. Factors affecting the implementation of exclusion netting to control *Drosophila suzukii* on primocane raspberry. Crop Protection: 105191.

Cloonan, K.R., J. Hernández-Cumplido, A.L.V. De Sousa, D.G. Ramalho, H.J. Burrack, L. Della Rosa, L.M. Diepenbrock, E. Ballman, F.A. Drummond, L.J. Gut, S. Hesler, R. Isaacs, H. Leach, G.M. Loeb, A.L. Nielsen, P. Nitzsche, K.R. Park, Z. Syed, S. Van Timmeren, **A.K. Wallingford**, V.M. Walton, C. Rodriguez-Saona. 2019. Laboratory and field evaluation of host-related foraging odor-cue combinations to attract *Drosophila suzukii* (Diptera: Drosophilidae). J. Econ. Entomol. 112: 2850-2860.

Stockton, D., **A. Wallingford**, D. Rendon, P. Fanning, C.K. Green, L. Diepenbrock, E. Ballman, V.M. Walton, R. Isaacs, H. Leach, A.A. Sial, F. Drummond, H. Burrack, and G.M. Loeb. 2019. Interactions between biotic and abiotic factors affect survival in overwintering *Drosophila suzukii* (Diptera: Drosophilidae). Environmental Entomology 48: 454-464.

Rendon, D., V. Walton, G. Tait, J. Buser, I. L. Souza, **A. Wallingford**, G. Loeb, and J. Lee. 2019. Interactions among morphotype, nutrition, and temperature impact fitness of an invasive fly. Ecology and Evolution 9:2615-2628.

Lancaster J., A. Khriminan, S. Young, K. Luck, B. Lehner, **A. Wallingford**, S. Gosh, P. Zerbe, M. Sparks, C. Tittiger, T. Köllner, D. Weber, D.E. Gundersen-Rindal, T. Kuhar, and D. Tholl. 2018. De novo formation of an aggregation pheromone precursor by an isoprenyl diphosphate synthase-related terpene synthase in the harlequin bug. PNAS 115: E8634-8641.

Wallingford, A., K. Rice, T. Leskey, and G. Loeb. 2018. Overwintering behavior of *Drosophila suzukii* Matsumura, and potential springtime diets for egg maturation. Environ. Entomol. 47: 1266-1273.

Wong, J.S., **A.K. Wallingford**, G.M. Loeb, and J.C. Lee. 2018. Physiological status of *Drosophila suzukii* (Diptera: Drosophilidae) affects their response to attractive odours. J Appl. Entomol. 142: 473-482.

Thrift, E.M., M.V. Herlihy, **A.K. Wallingford**, and D.C. Weber. 2018. Fooling the harlequin bug (Hemiptera: Pentatomidae) using synthetic volatiles to alter host plant choice. Environmental Entomology 42: 432-439.

Wallingford, A.K., T.P. Kuhar, and D.C. Weber. 2018. Avoiding proximate effects with attract-and-kill tactics for harlequin bug, *Murgantia histrionica*. J. Econ. Entomol. 111: 1780-1787.

Cha, D., **A. Wallingford**, P. Jentsch, F. Zaman, J. Nyrop, S. Hesler, G. Loeb. 2018. Comparison of commercial lures and food baits for early detection of fruit infestation risk by *Drosophila suzukii*. Journal of Pest Science 111: 645-652.

Wallingford, A.K., D.H. Cha, C.E. Linn Jr., M.S. Wolfin, and G.M. Loeb. 2017. Robust manipulations of pest insect behavior using repellents and practical application for integrated pest management. Environmental Entomology 46: 1041-1050.

Wallingford, A.K., D.H. Cha, and G.M. Loeb. 2017. Evaluating a push-pull strategy for management of *Drosophila suzukii* Matsumura in red raspberry. Pest Management Science 74: 120-125.

Wallingford, A.K., and G.M. Loeb. 2016. Developmental acclimation of *Drosophila suzukii* and its effect on diapause and winter stress tolerance. Environmental Entomology 45: 1081-1089.

Dimeglio, A., T. Kuhar, D. Mullins, **A. Wallingford**, and D. Weber. 2016. Supercooling points of *Murgantia histrionica* (Hemiptera: Pentatomidae) and field mortality in the mid-Atlantic United States following lethal low temperatures. Environmental Entomology 45: 1294-1299.

Wallingford, A.K., J. Lee, G.M. Loeb. 2016. The influence of temperature and photoperiod on the reproductive diapause and cold tolerance of spotted-wing drosophila, *Drosophila suzukii* Matsumura. Entomologia Experimentalis et Applicata 159: 287–377.

Wallingford, A.K., A. Mafra-Neto, H.L. Connelly, G.D. Brind'Amour, M.T. Boucher, and G.M. Loeb. 2016. Field evaluation of an oviposition deterrent for management of spotted-wing drosophila, *Drosophila suzukii* Matsumura, and potential non-target effects. Journal of Economic Entomology DOI: 10.1093/jee/tow116.

Wallingford, A.K., S. Hesler, D.H. Cha, and G.M. Loeb. 2015. Behavioral response of spotted-wing drosophila, *Drosophila suzukii* Matsumura, to aversive odors and a potential oviposition deterrent in the field. Pest Management Science. DOI 10.1002/ps.4040.

Wallingford, A.K., M.F. Fuchs, T. Martinson, S. Hesler, and G.M. Loeb. 2015. Slowing the spread of grapevine leafroll-associated viruses in commercial vineyards with insecticide control of the vector, *Pseudococcus maritimus* (Erhorn) (Hemiptera: Pseudococcidae). Journal of Insect Science 15: 112.

Wallis, C., A. Rashed, **A. Wallingford**, L. Paetzold, F. Workneh, and C. Rush. 2014. Similarities and differences in physiological responses to '*Candidatus* Liberibacter solanacearum' infection among different potato cultivars. Phytopathology 104: 126-133.

Wallis, C.M., **A.K. Wallingford**, and J. Chen. 2013. *Xylella fastidiosa* infection effects on xylem sap and tissue phenolics in different grapevine cultivars. Physiological and Molecular Plant Pathology 84: 28-35.

Wallis, C.M., **A.K. Wallingford**, and J. Chen. 2013. Grapevine rootstock effects on scion sap phenolic levels, resistance to *Xylella fastidiosa* infection, and progression of Pierce's disease. Frontiers in Plant Physiology 4: 502.

Wallingford, A.K., T.P. Kuhar, P.B. Schultz, D. Tholl, D.G. Pfeiffer, and J.H. Freeman. 2013. Host plant preference of harlequin bug, *Murgantia histrionica* (Hemiptera: Pentatomidae), and evaluation of a trap cropping system for its control. Journal of Economic Entomology 106: 283-288.

Wallingford, A.K., T.P. Kuhar, and P.B. Schultz. 2012. Toxicity and field efficacy of four neonicotinoids on harlequin bug (Hemiptera: Pentatomidae). Florida Entomologist 95: 1123-1126.

Wallingford, A.K., and D.G. Pfeiffer. 2012. A survey of sharpshooters (Hemiptera: Cicadellidae) in Virginia vineyards, a region of expanding concern for Pierce's disease. Journal of Entomological Science 72: 360-365.

Wallingford, A.K., T.P. Kuhar, P.B. Schultz, and J.H. Freeman. 2011. Harlequin bug biology and pest management in brassicaceous crops. Journal of Integrated Pest Management 2:H1-4. DOI:10.1603/IPM1001.

Wallingford, A.K., S.A. Tolin, A.L. Myers, T.K. Wolf, and D.G. Pfeiffer. 2007. Expansion of the range of Pierces's disease in Virginia. Online. Plant Health Progress. doi: 10.1094/PHP-2007-1004-01-BR.

Book chapters

T. P. Kuhar, C. Philips, **A. Wallingford**, J.D. Aigner, and A. Wimer. 2022. Chemical control of potato pests. *In* Insect Pests Potatoes, 2nd Edition. A. Alyokhin, C. Vincent, and P. Giordanengo (Eds.) Academic Press.

T. P. Kuhar, C. Philips, K. Kamminga, **A. Wallingford**, and A. Wimer. 2012. Chemical control of potato pests. *In* Insect Pests Potatoes, 1st Edition. A. Alyokhin, C. Vincent, and P. Giordanengo (Eds.) Academic Press.

Select Extension Publications & Editor-Reviewed Journals

"Over-Informed on IPM" Podcast: multi-episode series featuring various pest management topics.

"Relative to New Hampshire" Podcast: multi-episode series featuring interviews from members of the UNH scientific community, conducted by UNH students learning science communication skills.

Wallingford, A.K. and G.M. Loeb. 2016. Spotted wing drosophila winter biology. New York Fruit Quarterly July, 2016.

Kuhar, T.P, C. R. Philips, K. Kamminga, and **A. Wallingford**. 2012. Pyrethroid resistance in green peach aphid in southwestern Virginia (USA) and field efficacy of insecticides in peppers. Resistant Pest Management Newsletter 21: 8-10.

Wallingford, A.K., T.P. Kuhar, and P.B. Schultz. 2011. The pest caterpillars of cole crops in Virginia. Virginia Cooperative Extension Publication No. ENTO-77NP.

Kuhar, T.P., H. Doughty, K. Kamminga, **A. Wallingford**, C. Philips, and J. Aigner. 2013. Evaluation of foliar insecticides for the control of brown marmorated stink bugs in bell peppers in Virginia – 2012. AMT 2013, Vol. 38: E41. Online publication. doi: 10.4182/amt.2013.E41.

Kuhar, T., P. Schultz, H. Doughty, A. Wimer, **A. Wallingford**, H. Andrews, C. Philips, M. Cassell, and J. Jenrette. 2011. Evaluation of foliar insecticides for the control of corn earworm in sweet corn in Virginia, 2010. AMT 2011, Vol. 36: E72. Online publication. doi:10.4182/amt.2011.E72.

Kuhar, T., P. Schultz, H. Doughty, A. Wimer, **A. Wallingford**, H. Andrews, C. Phillips, M. Cassell, and J. Jenrette. 2011. Evaluation of foliar insecticides on fall tomatoes in Virginia, 2010. AMT 2011, Vol. 36: E84. Online publication. doi: 10.4182/amt.2011.E84.