

ALEXANDRA LYON

Centre for Sustainable Food Systems at UBC Farm
Faculty of Land and Food Systems
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RESEARCH SPECIALIZATION

Agroecology, seed systems, plant breeding, participatory research, knowledge mobilization for agri-food systems

EDUCATION

Aug. 2015 **Ph.D.**, University of Wisconsin-Madison, Nelson Institute for Environmental Studies

- Advisor: Erin Silva
- Major: Environment and Resources
- Thesis: *Evaluating for Resilience: Participatory Variety Trials and Seed Systems for Wisconsin's Organic Vegetable Farms*

Dec. 2008 **M.S.**, University of Wisconsin-Madison, Agroecology Program

- Advisor: Michael M. Bell
- Thesis: *Learning as You Go: Farmers, Scientists, and the Creation of Knowledge for Management Intensive Grazing*

May 2004 **B.S.**, Smith College

- Advisors: Frederique Apfell-Marglin, Leslie King
- Major: Anthropology; Minor: Environmental Science & Policy

LEAVES OF ABSENCE

July 2013 – Aug 2014 Parental Leave

March – Dec 2017 Parental Leave

PROFESSIONAL EXPERIENCE

Nov 2015 – **Postdoctoral Research Fellow**, University of British Columbia, Prof. Hannah Wittman

- Designed and implemented participatory variety trialing network involving 25 farms in BC from 2016-2018, and expanding to Ontario, Quebec, and Atlantic Canada in 2018
- With Dr. Wittman and international team of co-investigators, developed and secured funding for a 5-year, ongoing research collaboration including participatory plant breeding in key vegetable crops for organic agriculture
- Conducted research on the role of seed in sustainable agri-food systems
- Delivered extensive knowledge mobilization through public field days, workshops, presentations, webinars, and online research briefs

2010 – 2014 **Research Assistant**, University of Wisconsin-Madison, Prof. Erin Silva

- Coordinated variety trials in 7 vegetable crops on 15 organic farms
- Managed organic variety trials at West Madison Agricultural Research Station
- Collaborated with plant breeders, farmers and other seed professionals in multi-university, USDA-funded research initiative

- 2006-2008 **Research Assistant**, University of Wisconsin-Madison, Prof. Michael Bell
- Organized field days and built farmer relationships for a participatory research project in pasture management and pasture ecology

PUBLICATIONS

- Lyon, A. H.**, W. Tracy, M. Colley, P. Culbert, M. Mazourek, J. Myers, J. Zystro, and E. M. Silva. 2019. "Adaptability Analysis in a Participatory Variety Trial of Organic Vegetable Crops." *Renewable Agriculture and Food Systems*, 1–17.
- Lyon, A. H.**, E. M. Silva, J. Zystro, and M. M. Bell. 2015. "Seed and Plant Breeding for Wisconsin's Organic Vegetable Sector: Understanding Farmers' Needs." *Agroecology and Sustainable Food Systems*.
- Luby, C. H., **A. H. Lyon**, and A. C. Shelton. 2013. "A New Generation of Plant Breeders Discovers Fertile Ground in Organic Agriculture." *Sustainability* 5, 6: 2722-2726.
- Lyon, A. H.**, M. M. Bell, C. Gratton, and R. Jackson. 2011. "Farming without a recipe: Wisconsin graziers and new directions for agricultural science." *Journal of Rural Studies* 27, 4: 348-393.
- Lyon, A.H.**, M. M. Bell, C. Gratton, and R. Jackson. 2010 "Maculate Conceptions: Power, Process, and Creativity in Participatory Research." *Rural Sociology* 75, 4: 538-559.
- Bell, M. M., **A. H. Lyon**, C. Gratton, and R. Jackson. 2008. "The Productivity of Variability: An Agroecological Hypothesis." *International Journal of Agricultural Sustainability* 6: 1-3.

PRESENTATIONS

- Lyon, A.** 2019. "Digging Better Carrots, Picking Better Peppers: Introducing CANOVI: Canadian Organic Vegetable Improvement." Conference 2019 - Certified Organic Associations of British Columbia. 22 – 24 February, 2019, Vernon, BC.
- Lyon, A.** 2018. "Reinvigorating A Seed Commons? Cultivating Seed Sovereignty in the Public Sphere." 2018 Conference – Agriculture, Food and Human Values Society. 13 - 16 June, Madison, WI.
- Lyon A.** 2018. "Facilitating Farmer Collaboration in On-farm Variety Trials: Lessons from Wisconsin and British Columbia." 9th Organic Seed Growers Conference. 16 – 18 February, Corvallis, OR.
- Lyon, A.**, and M. Sylvestre. "BC Seed Trials Update: What We Learned in Year One of Participatory Variety Trials to Support Organic Seed Production in BC." February 2017
- Lyon, A.** 2015. (Poster) "Workhorse Varieties for Organic Farms: Perspectives from Wisconsin Farmers. Organic Agriculture Research Symposium." 25-26 February, La Crosse, WI.
- Lyon, A. H.** and E.M. Silva. 2013. (Poster) "Seed and Plant Breeding for Wisconsin's Organic Vegetable Sector: Understanding Farmers' Needs and Practices." MOSES Organic Farming Conference. 21 – 23 February, Lacrosse, WI.
- Lyon, A. H.** and E.M. Silva. 2011. "Participatory On-Farm Trials in the NOVIC Project. MOSES Organic Farming Conference." 24 – 26 February, Lacrosse, WI.
- Lyon, A. H.** 2008. "Maculate Conceptions: Power, Process, and Creativity in Participatory Research." Annual Meeting of the Rural Sociological Society. July 26 – 28, Manchester, NH.
- Lyon, A. H.**, M. M. Bell, R. Jackson, and C. Gratton. 2008. (Poster) "Directions for Grazing Research: Agronomic Recipes or Ecological Principles?" Upper Midwest Organic Conference. 21 – 23 February, Lacrosse, WI.

GRANTS AND AWARDS

- “Participatory variety trialing and breeding for commercial organic vegetable growers and seed producers in Canada.” AAFC Organic Science Cluster 3. Project manager, co-wrote application and formulated core research plan. **2018. (C\$331,000)**
- “Why Does Local Seed Matter: Conceptualizing linkages between community seed systems, food sovereignty, and resilience in British Columbia.” SSHRC Insight Development Grant. Principle applicant. **2016. (C\$75,000)**
- “Growing a BC Seed Industry: Increasing the competitiveness of BC seed producers through participatory variety trials.” Investment Agriculture Foundation. Co-applicant. **2016. (C\$98,000)**
- “The Student Organic Seed Symposium: Supporting and educating future leaders in organic seed and plant breeding.” USDA Organic Agriculture Research and Extension Initiative. Co-applicant. **2015. (US\$49,500)**
- Annie’s Sustainable Agriculture Scholarship. Principle Applicant. **2012. (US\$2,500)**
- Ceres Graduate Student Grant. Principle Applicant. **2010. (US\$9,584)**

LEADERSHIP POSITIONS

Board Member, Society for Organic Seed Professionals, 2017 - 2018

- Helped launch a professional society for early career professionals in organic seed. I continue to serve on the Diversity and Inclusion Committee as a non-board member.

Co-founder, Student Organic Seed Symposium, August 2011

- With two student co-founders, launched first nation-wide, graduate student symposium in organic plant breeding and seed systems, which has been held annually since
- Collaborated with public, private, and non-profit leaders in the organic seed industry to fund scholarships and create mentor network for graduate students

KNOWLEDGE MOBILIZATION AND OUTREACH – PRESENTATIONS

Lyon, A., H. Jensen, and E. Winfeld. “Introduction to Canadian Organic Vegetable Improvement (CANOVI).” Live Webinar. March 28, 2019.

Lyon, A. “Farmer Field Science Day: Carrot Breeding.” Organized and hosted day-long farmer workshop. UBC Farm, October 15, 2018.

Lyon, A. “Adapting Seeds for Canadian Organic Farms.” Presentation at the Organic Production Research Field Day at UBC Farm. October 23, 2018.

Lyon, A., C. Hick, S. MacKinnon, and C. Thoreau. “Seeds of Knowledge.” Public variety trial tasting, field day, and research tour. UBC Farm, July 21, 2018

Lyon, A. and C. Thoreau. “BC Seed Trials.” Live Webinar. April 11, 2018.

Lyon, A. “Using Participatory Variety Trials to Assess Response to Environment in Organic Vegetable Crops.” Live Webinar through eOrganic/e-Extension. March 3, 2015.
www.extension.org

Lyon, A. and Solveig Hanson. 2015. “Finding New Favorites: Variety Trials for Your Farm or Garden.” Mother Earth News Fair. 8 August, West Bend, WI.

KNOWLEDGE MOBILIZATION AND OUTREACH – PUBLICATIONS

Dey, A., R. McLean, C. Hick, S. MacKinnon, I. Marder-Eppstein, C. Thoreau, and A. **Lyon**. 2018. *Canadian Organic and Ecological Plant Breeding Priorities for Vegetable Crops: 2018 Survey Report*. Toronto: Bauta Family Initiative on Canadian Seed Security.

<http://seedsecurity.ca/en/resources/onfarm-research>

Lyon, A., M. Sylvestre, C. Thoreau, S. MacKinnon, and R. Prasad. 2017. *BC Seed Trials Specialty Beet Variety Trial 2016*. Vancouver: Centre for Sustainable Food Systems at UBC Farm.

<https://bcfoodweb.ca/crops/seeds>

Lyon, A., M. Sylvestre, C. Thoreau, S. MacKinnon, and R. Prasad. 2017. *BC Seed Trials Lacinato Kale Variety Trial 2016*. Vancouver: CSFS at UBC Farm. <https://bcfoodweb.ca/crops/seeds>

Lyon, A., M. Sylvestre, C. Thoreau, S. MacKinnon, and R. Prasad. 2017. *BC Seed Trials Spinach Variety Trial 2016*. Vancouver: CSFS at UBC Farm. <https://bcfoodweb.ca/crops/seeds>

GUEST LECTURES

- *Applied Biology 318: Applied Plant Breeding*, University of British Columbia. “Participatory Plant Breeding: Why and How?” November 13, 2018.
- *Interdepartmental Seminar: Seeds and Human Wellbeing*, Middlebury College. “A Farm-Level View of the Organic Seed Industry.” January 25, 2016.
- *Seminar in Sociology of Environment, Technology, and Agrofood Systems*. No Textbook Answer: How Wisconsin Graziers Understand University Research. 2 May 2007, UW-Madison.
- *Agronomy 300: Cropping Systems*. Agroecology and Agroecosystems. 6 February 2008, UW-Madison.

TEACHING EXPERIENCE

- *Agroecology 701: The Farm as an Agroecological Endeavor* (Teaching Assistant). Gave 3 lectures on topics including organic seed, plant breeding, and participatory research, facilitated discussion sessions, assisted with course design and materials. Spring 2013, UW-Madison.
- *Introduction to Environmental Studies*. (Curriculum Design Assistant). Helped develop curriculum for a new introductory survey course for first year students. Spring 2004, Smith College.

PEDAGOGY TRAINING

- *Foundations of Pedagogy 1*, Centre for the Integration of Research, Teaching, and Learning (CIRTL) at UBC. Completed March 2019.

STUDENT MENTORSHIP & SUPERVISION

Masters Students

- Chris Thoreau, M.Sc in Applied Biology, UBC. Supervisor: Hannah Wittman
 - Partially funded on my SSHRC Insight Development grant
 - Advised on research question design, directed research assistantship related to on-farm variety trials
- Paul Dutartre, Master’s in Agriculture Science at National Institute of Agronomy and Food Science in Dijon (France)
 - Supervised 20-week research internship, March – August 2019

Work-Learn and Directed Studies Students

- Katherine Cramer, Work-Learn project, May 2018 – April 2019
- Morgan Hamilton, APBI 497 Directed Studies, Spring 2019
- Carla Hick, Work-Learn Program, Sept. 2016 – Apr. 2018
- Nicolette Lax, Work-Learn Program, Sept 2016 – Apr. 2017

PRESS MENTIONS

- Marr, Jordan. *The Ruminant Podcast*. (Interview completed, episode release in April 2019)
<http://www.theruminant.ca/podcast>
- Wylie, Constance. "Cultivating Climate Resilience in a Living Laboratory." *The BC Organic Grower*.
January, 2019. <http://bcorganicgrower.ca/2019/01/organic-stories-ubc-farm-vancouver-bc/>
- Tomlinson, S. "B.C. researchers focus on vegetable seeds." *The Western Producer*. March 2018.
<https://www.producer.com/2018/03/b-c-researchers-focus-vegetable-seeds/>
- Mitham, Peter. "Beet trials target 'seed sovereignty'." *Country Life BC*. September 2017.
<https://www.countrylifeinbc.com/beet-trials-target-seed-sovereignty/>
- MacKinnon, Shauna. "The BC Seed Trials: Scaling Up Ecological Seed Production." *British Columbia Organic Grower*. September 2017. <http://bcorganicgrower.ca/2016/09/the-bc-seed-trials/>
- Shore, Randy. Farm Trials Underway to Establish Commercial Seed Industry in BC. *Vancouver Sun*.
April 2016. <http://vancouver.sun.com/business/local-business/farm-trials-underway-to-establish-commercial-seed-industry-in-b-c>
- Miller, N. Seeding an Organic Future. *Grow: Wisconsin's Magazine for the Life Sciences*. 2013. 6, 3: 28-33.
of Wisconsin, Madison. http://grow.cals.wisc.edu/current-issue?issue_id=816
- Cherfas, J. Plant breeding as a public good. Again. *Agricultural Biodiversity Weblog*. June 19, 2013.
<http://agro.biodiver.se/2013/06/plant-breeding-as-a-public-good-again/>

PEER REVIEW

- Manuscript reviewed for *Canadian Food Studies*, January 2019
- Grant application reviewed for the Swiss National Science Foundation, February 2018
- Served on Survey Design Working Group for Organic Seed Alliance, nationwide Organic Farmer Seed Survey, February 2014 – March 2015