BIOGRAPHICAL SKETCH

Scott H. Brainard
Postdoctoral Research Associate
University of Wisconsin–Madison
1575 Linden Drive
Madison, WI 53703

Email: shbrainard@wisc.edu
Web: https://shbrainard.org
Phone: 518-779-4485
Fax: 608-262-4743

(a) Education & Training

University of Wisconsin	Madison, WI	Plant Breeding	Ph.D, 2021
Wageningen University	Wageningen, NL	Plant Science	M.Sc. *cum laude*, 2014
Swarthmore College	Swarthmore, PA	Philosophy	B.A., 2009

(b) Research & Professional Experience

2021 – present Postdoctoral Researcher, University of Wisconsin–Madison
2018 – present Tree Crop Breeder, Savanna Institute

(c) Publications

Most closely related

1. S. H. Brainard, S. L. Ellison, P. W. Simon, J. C. Dawson, I. L. Goldman, Genetic characterization of carrot root shape and size using genome-wide association analysis and genomic-estimated breeding values, *Theoretical and Applied Genetics* (2021).
2. S. H. Brainard, J. A. Bustamante, J. C. Dawson, E. P. Spalding, I. L. Goldman, A digital image-based phenotyping platform for analyzing root shape attributes in carrot, *Frontiers in Plant Science* **12**, 1171 (2021).

Other significant publications

3. S. H. Brainard, K. J. Wolz, K. Keeley, A. Rodrigues, F.-J. Selosse, Overcoming Bottlenecks in the Midwest Hazelnut Industry: An Impact Investment Plan, https://www.savannainstitute.org/hazelnut-impact-investment-report/ (2019).
4. S. H. Brainard, The impact of Indonesian agricultural policies on indigenous populations, natural resources and the economy, *U. Miami Inter-Am L. Rev* **43**, 165–193 (2011).

(d) Invited Talks

1. *Improving the efficiency of selecting for nut traits using genomic data* (Daucus carota *subsp.* sativus). Upper Midwest Hazelnut Development Initiative - Annual Conference. La Crosse, WI. March 5, 2022.
2. *The genetic control of market class in carrot* (Daucus carota *subsp.* sativus). Plant Animal Genome Conference XXIX. Virtual conference. January 8, 2022.
3. *First chromosome-scale genome assemblies for Corylus americana*. Plant Animal Genome Conference XXIX. Virtual conference. January 8, 2022.
4. *Improving the efficiency of hazelnut breeding using genomic data*. North American Agroforestry Conference. Virtual conference. July 1, 2021.
5. *Improving the efficiency of hazelnut breeding using genetic information*. Upper Midwest Hazelnut Development Initiative - Annual Conference. Virtual conference. March 5, 2021.

6. *Launching the Midwest Hazelnut Industry*. Northern Nut Growers Association - Annual Meeting. Iowa City, IA. July 28, 2019.
7. *Prospects and Bottlenecks in the Midwestern Hazelnut Industry*. Upper Midwest Hazelnut Development Initiative - Annual Conference. Eau Claire, WI. March 9, 2019.
8. *Using digital image-based phenotyping to investigate the genetic bases of root shape and market class in carrot*. Vegetable Breeding Institute. Ithaca, NY. August 27, 2018.
9. *Using digital image-based phenotyping to investigate the genetic bases of root shape and market class in carrot*. 39th International Carrot Conference. Madison, WI. August 23, 2018.
10. *Development of improved carrot germplasm for organic production systems through an understanding of market class genetics*. Organic Seed Growers Conference. Corvallis, OR. February 18, 2018.

(e) Synergistic Activities

1. Reviewer for Frontiers in Ecology And Evolution, Plant Breeding Reviews
2. Lecturer in graduate-level courses for students in the Plant Breeding and Plant Genetics Program at the University of Wisconsin–Madison
3. Mentoring of graduate students in Horticulture (2) and Chemistry (1) PhD programs
4. Development of Java applications for pre-processing Illumina sequence data

(f) Professional organizations

1. National Association of Plant Breeders
2. International Society for Horticultural Science

(g) Selected funding

1. Ekhagastitelsen (Co PI), 2017–2020 - *Market Class Genetics and the Development of Improved Carrot Germplasm for Organic Production Systems* - $162,000
2. USDA-CGC (Co PI), 2019–2020 - *Digital Root Phenotyping and Genotyping of the USDA-NPGS Carrot Collection* - $27,500
3. Arnold Arboretum Jewett Prize (Co PI), 2020–2021 - *De novo assembly of a draft genome for the American hazelnut (Corylus americana)* - $10,000
4. Wisconsin Specialty Crop Block Grant Program (Co PI), 2022–2023 - *Breeding Cold Hardy Chestnuts for Wisconsin* - $81,000