

CURRICULUM VITAE

WILLIAM F. TRACY

University of Wisconsin-Madison
Department of Agronomy
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Education:

Ph.D. Cornell University, Major: Plant Breeding. May 1982.
Minors: Genetics, Agronomy.
M.S. University of Massachusetts, Amherst, May 1979.
Major: Plant and Soil Sciences. Minor: Botany.
B.S. University of Massachusetts, Amherst, May 1976.
Major: Plant and Soil Sciences, Magna Cum Laude.
Boston College, 1972-1974. Major: Biology.

Professional Experience

<u>Rank</u>	<u>Place</u>	<u>Date</u>
Professor	Department of Agronomy--UW-Madison	7/1996 – Present
Department Chair	Department of Agronomy--UW-Madison	6/2004 – 2018
Lignan Chair	Foshan University	7/2018 – present
Clif Bar and Organic Valley Endowed Chair		7/2016 – present
Interim Dean	College of Agricultural and Life Sciences	1/2011 – 3/2012
Friday Endowed Chair		7/2009 – 6/2016
Associate Professor	Department of Agronomy--UW-Madison	7/1990 – 6/1996
Assistant Professor	Department of Agronomy--UW-Madison	9/1984 – 6/1990
Senior Corn Breeder	Cargill Incorporated	7/1983 – 8/1984
Research Scientist	International Plant Research Institute	1/1982 – 6/1983

Awards

- Fellow, Crop Science Society of America, 2018
- Clif Bar and Organic Valley Chair 7/2016 – present
- 2014 National Public Plant Breeding Award. National Council of Commercial Plant Breeders.
- WALSA 40 in 40 Award. 2012. Wisconsin Agricultural and Life Sciences Alumni Association.
- Friday Chair of vegetable research 6/2009 – 6/2016
- Honored Instructor 2012, 2014, 2015 University Housing
- Jung Outstanding Teaching Award 2004, College of Agricultural and Life Sciences University of Wisconsin-Madison
- Outstanding Teaching Award, 1997, Wisconsin Teacher Enhancement in Biology Program, University of Wisconsin-Madison

Research Interests: Sweet corn breeding for quality, productivity, and pest resistance. Genetics, biochemistry, and modification of endosperm starch biosynthesis, and the genetics of pest resistance. Research on breeding under conventional and organic systems. Bill's group has developed sweet corn varieties that are grown commercially on every arable continent.

Teaching Interests: Undergraduate instruction and advising in agronomy; Agronomy 100-"Principles and Practices of Crop Production; Agron 701 Introductory Agroecology. Undergraduate advising in Biology. Graduate instruction and advising in plant breeding and plant genetics.

<u>Students advised</u>	<u>Graduated</u>			<u>Current</u>		
	<u>Ph.D.</u>	<u>M.S.</u>	<u>B.S.</u>	<u>Ph.D.</u>	<u>M.S.</u>	<u>B.S.</u>
	24	23	~400	5	1	~20

Professional Societies

- American Association for the Advancement of Science
- American Society for Horticultural Science
- Crop Science Society of America
- International Sweet Corn Development Association

Germplasm Releases

- **Hybrids** ‘Sweet Success’, ‘Natural Sweet 9000’, ‘Radiance’.
- **Cultivars developed under certified organic conditions:** ‘Who Gets Kissed?’, ‘Bling’, ‘My Fair Lady’, ‘Sweet Magnolia’, Honey Crunch’.
- **Inbreds** (over 100)
- **Populations** ‘New Spanish Gold’, ‘Country Gentleman *sh2*’ ‘Golden Early Market *sh2*’
- ‘Wisconsin Early Sugary Enhancer Synthetic’, ‘*sh2*Lancaster’, ‘*sh2*SSS’, Mexican Dent *sh2* (rust), Caribbean Flint *sh2* (NCLB), Hawaiian temperate *bt2* (rust), Red *su1* (rust),
- **Genetic Stocks** Wvg1 Wvg2, Wvg3, Wvg4, Wvg5, Wvg7; W822GSe and W822Gse

Publications (2015-2019)

Refereed Journals

Gage, J.L., B. Vaillancourt, J.P. Hamilton, N. C. Manrique-Carpintero, T.J. Gustafson, K. Barry, A. Lipzen, W.F. Tracy, M.A. Mikel, S.M. Kaeppler*, C. R. Buell, and N. de Leon. (2019) Multiple maize reference genomes impact the identification of variants by GWAS in a diverse inbred panel. *The Plant Genome* (accepted).

Allam, M., B. Ordás, A. Djemel, W.F. Tracy, P. Revilla. 2019. Linkage disequilibrium between fitness QTLs and the *sugary1* allele of maize. *Mole. Breeding* 39:3
<https://doi.org/10.1007/s11032-018-0911-1>

Lyon, A., E.M. Silva, W.F. Tracy, J. Zystro, M. Colley, M. Mazourek, J. Myers, and P. Culbert. 2019. Adaptability Analysis in a Participatory Variety Trial of Organic Vegetable Crops. *Renewable Ag and Food Systems* <https://doi.org/10.1017/S1742170518000583>

Gustin, J. S. Boehlein, J. Shaw, W. Junior, A.M. Settles, A. Webster, W.F. Tracy, and L.C. Hannah. 2018. Ovary abortion is prevalent in diverse maize inbred lines and is under genetic control. *Scientific Reports*
<https://doi.org/10.1038/s41598-018-31216-9>

- Moore V.M. and W.F. Tracy 2018. "Recurrent Full-Sib Family Selection for Husk Extension in Sweet Corn" *Journal of American Society of Horticultural Science*. (accepted)
- Baseggio, M., Murray, M., Magallanes-Lundback, M., Kaczmar, N., Chamness, J., Buckler, E., Smith, M., DellaPenna, D., Tracy, W., and Gore, M. (2018). Genome-wide association and genomic prediction models of tocochromanols in fresh sweet corn kernels. *The Plant Genome*.
- Gustafson, T.J, N. de Leon, S.M. Kaeppler, and W. F. Tracy 2018 Genetic Analysis of *Sugarcane mosaic virus* Resistance in the Wisconsin Diversity Panel of Maize *Crop Science* 58:1853-1865
- Dawson, J., V. Moore, and W.F. Tracy 2018. Establishing best practices for germplasm exchange, intellectual property rights, and revenue return to sustain public cultivar development doi: 10.2135/cropsci2017.05.0320; Date posted: December 20, 2017
- Shuler, S.L., S.K. Boehlien, L.C. Hannah, and W.F. Tracy. 2017. Endosperm Carbohydrates and Debranching Enzyme Activity in Five Native *sugary1* Alleles in Maize. *Crop Science* 57:3068-3074.
- Shelton, A.C. and W.F. Tracy. 2017. Cultivar development in the US public sector. *Crop Science*. *Crop Science* 57:1823-1835
- Shelton, A.C. and W.F. Tracy. 2016. Participatory plant breeding and organic agriculture: A synergistic model for organic variety development in the United States. *Elem Sci Anth*. 2016;4:143. DOI:<http://doi.org/10.12952/journal.elementa.000143>
- Bode, A.O., Y. Bian, B. De Vries, W.F. Tracy, R. Wisser, J.B. Holland, and P.J. Balint-Kurti. 2016. The genetics of leaf flecking in maize and its relationship to the defense response and broad-spectrum disease resistance. *Plant Physiology* 172(3): 1787–1803
- Olukolu, B.A., Tracy, W.F., Wisser, R., De Vries, B., and Balint-Kurti, P.J. 2016. A Genome-Wide Association Study for Partial Resistance to Maize Common Rust. *Phytopathology* 106, 745-751.
- Allam, M., Revilla, P., Djemel, A., Tracy, W.F., and Ordas, B. 2016. Identification of QTLs involved in cold tolerance in sweet x field corn. *Euphytica* 208, 353-365.
- De Vries, B.D., S. Shuler and W.F. Tracy. 2016. Endosperm Carbohydrates in Pseudostarchy and Extreme-sugary Maize Inbreds During Kernel Development *Crop Science* 56:2448-2456.
- Trimble, L., S. Shuler and W.F. Tracy. 2016. Characterization of five naturally occurring alleles at the *sugary1* locus for seed composition, seedling emergence, and isoamylase1 activity. *Crop Sci*. 56:1927-1939.

- De Vries, B.D., T.E. Peters, B.J. Glaza, L.M. Viesselmann, and W.F. Tracy. 2015. Estimating the genetic effects modifying endosperm composition in *sugary1* maize. *Crop Science* 55: 578-588.
- De Vries, B.D. and W.F. Tracy. 2015. Characterization of endosperm carbohydrates in *isa2-339* maize and interactions with *su1-ref*. *Crop Science* 55:2277-2286.
- Dodson, H.G. and W.F. Tracy. 2015. Endosperm carbohydrate composition and kernel characteristics of *shrunken2-intermediate (sh2-i/sh2-i Su1/Su1)*, and *shrunken2-intermediate, sugary1 (sh2-i/sh2-i su1/su1)* in sweet corn (*Zea mays*) *Crop Sci.* 55:2647-2656
- Revilla, P., A. Mohamed, D. Abderrahmane, W.F. Tracy, B. Ordás. 2015. Identification of QTLs involved in the viability of the *sugary1* mutant in maize (*Zea mays* L.). *Euphytica* DOI 10.1007/s10681-015-1609-7
- Shelton, A.C. and W.F. Tracy. 2015. Recurrent selection and participatory plant breeding for improvement of two organic open-pollinated sweet corn (*Zea mays* L.) populations. *Sustainability* 2015, 7, 5139-5152; doi:10.3390/su7055139
- Zhengbin, L, J. Cook, S. Melia-Hancock, K. Guill, C. Bottoms, A. Garcia, O. Oliver, R. Nelson, J. Recker, P. Balint-Kurti, S. Larsson, N. Lepak, E. Buckler, L. Trimble, W. Tracy, M.D. McMullen, S.A. Flint-Garcia. 2015. Expanding maize genetic resources with pre-domestication alleles: maize-teosinte introgression populations. *The Plant Genome* doi: 10.3835/plantgenome2015.07.0053