

Henry Janzen Biographical Sketch

Henry Janzen is a Soil Biochemist with Agriculture and Agri-Food Canada in Lethbridge, Alberta, Canada. His research focuses on the cycles of carbon and nitrogen in agricultural ecosystems, with emphasis on conferring resilience, maintaining productivity, and reducing nutrient losses to adjacent environments. Much of his research has considered influences of land management on gradual changes in soil organic matter, as measured in long-term experiments established decades ago. In exploring the links between farmlands and the global carbon cycle, he has participated in various international research activities, including contributions to reports of the Intergovernmental Panel on Climate Change (IPCC). As well, he has been invited to present findings and syntheses in a range of international venues. In recent years, his interests have expanded to explore also other socio-ecological issues related to carbon and nitrogen cycling through farmlands, including questions about food security, biodiversity, and energy. Examples of past and recent efforts include:

Publications

- Janzen, H.H. The soil remembers. *Soil Science Society of America Journal* 80:1429-1432.
- Gregorich, E.G., H.H. Janzen, B.H. Ellert, B.L. Helgason, et al. 2017. Litter decay controlled by temperature, not soil properties, affecting future soil carbon. *Global Change Biology* 23:1725-1734.
- Yanni, S.F., H.H. Janzen, E.G. Gregorich, B.H. Ellert, F.J. Larney, B.M. Olson and F. Zvomuya. 2016. Organic carbon convergence in diverse soils toward steady state: A 21-year field bioassay *Soil Science Society of America Journal* 80:1653-1662.
- Janzen, H.H. 2015. Beyond carbon sequestration: Soil as conduit of solar energy. *European Journal of Soil Science* 66:19-32.
- Gregorich, E., H.H. Janzen, B. Helgason, and B. Ellert. 2015. Nitrogenous gas emissions from soils and greenhouse gas effects. *Advances in Agronomy* 132:39-74.
- Helgason, B.L., E.G. Gregorich, H.H. Janzen, B.H. Ellert, N. Lorenz, R.P. Dick. 2014. Long-term microbial retention of residue C is site-specific and depends on residue placement. *Soil Biology and Biochemistry* 68:231-240.
- Janzen, H.H. 2011. What place for livestock on a re-greening earth? *Animal Feed Science and Technology* 166-167:783-796.
- Janzen, H.H., P.E. Fixen, A.J. Franzluebbers, J. Hattey, R.C. Izaurralde, Q.M. Ketterings, D.A. Lobb, and W.H. Schlesinger. 2011. Global prospects rooted in soil science. *Soil Science Society of America Journal* 75:1-8
- Janzen, H.H. 2009. Long-term ecological sites: musings on the future, as seen (dimly) from the past. *Global Change Biology* 15:2770–2778.
- Janzen, H.H. 2006. The soil carbon dilemma: shall we hoard it or use it? *Soil Biology and Biochemistry* 38:419-424.

Oral presentations

- Janzen, H.H. & E.G. Gregorich. 2015. Sustaining soil health – a Canadian perspective. SSSA Annual meeting, Minneapolis, MN
- Janzen, H.H. & B.H. Ellert. 2014. Long-term ecological sites: listening for coming change in ecosystems. International Conference on Experimentation in Ecosystem Research in a changing world: Challenges and opportunities. Paris, France.
- Janzen, H.H. 2012. Soil: the long continuum. Joint Soil Science Australia and New Zealand Society of Soil Science Conference. Soil solutions for diverse landscapes, December 2-7, 2012, Hobart, Tasmania, Australia.
- Janzen, H.H. 2012. Soil as story: Probing the past, exploring the future. Dr. Roscoe Ellis, Jr. Lecture, Kansas State University, February 29, 2012
- Janzen, H.H. 2011. The growing land dilemma: treading more softly, but producing more. The Royal Society, London, UK, February 2011.
- Janzen, H.H. 2011. Soil: the quiet connector. The Brady Lecture, Soil Science Society of America, October 2011, San Antonio, Texas.