FARMING CARBON WITH BUFFERS AND BIOMASS CROPS

Prof. Naresh Thevathasan studies how tree-based systems and biomass crops benefit soil health, our crops, and our environment.

DISCOVERIES

- Establishing streamside buffers along the Grand River Watershed could stabilize over 11,000 km of degraded streams and sequester up to 3.8 Tg of carbon.
- Tree-based intercropping systems can help Ontario farmers adapt to climate change by moderating the crop microclimate and improving soil health.
- Perennial and woody biomass crops can increase soil carbon storage.

STAY CONNECTED

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Ongoing Projects

Ecosystem Services from Streamside Buffers. Studying the impact of trees on carbon sequestration and greenhouse gas emissions in terrestrial and aquatic ecosystems. Funding: AAFC-AGGP.

Biomass Crops and Soil Carbon Storage. Monitoring soil and water quality after land-use change to biomass crops. Funding: OMAFRA.

Publications

Quantifying C stocks in high-yield, short-rotation woody crop production systems for forest and bioenergy values and CO2 emission reduction. Coleman B, Bruce K, Chang Q, Frey L, Guo S, Tarannum MS, Bazrgar A, Sidders D, Keddy T, Gordon A, and Thevathasan N (2018). *Forestry Chronicle*.

Biomass yield assessment of five potential energy crops grown in southern Ontario, Canada. Marsal F, Thevathasan N, Guillot S, Gordon A, Thimmanagari M, Deen W, Silim S, Soolanayakanahally R, and Sidders D (2016). *Agroforestry Systems.*

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