



**Northwest
Horticultural
Council**



**WASHINGTON STATE
UNIVERSITY**

Wenatchee Tree Fruit Research and Extension Center

Dear Apple Grower,

We are asking you to participate in a survey to support the development of a life cycle assessment, or LCA. The goal of this LCA is to develop a scientifically defensible benchmark for apple production specific to practices and conditions in our growing region. We hope you will invite each orchard manager at your operation to take the survey. **To access the survey, scan the QR code or go to: go.wsu.edu/AppleLCA.**



Given the rise in sustainability audit schemes, climate standards, and carbon markets, our research team is collaborating with the Pacific Northwest apple industry to collect production information specific to the region. This project is funded by the Washington Tree Fruit Research Commission, with input and support from the Washington State Tree Fruit Association and Northwest Horticultural Council. A research team led by Washington State University is conducting the study, in collaboration with Resilience Services, PLLC and Blonk Sustainability Tools. Our goal is to contribute to industry-led solutions by quantifying our region’s production practices and documenting sustainable and climate-smart practices, which apple growers can use to effectively communicate sustainability achievements to buyers and consumers. An LCA is a data-heavy endeavor, and we need your input to build it.

The online survey will ask about the production of one distinct apple block (in full production, conventional or organic) and the ranch the block is part of. We are asking that **each** orchard manager at your company be invited to complete the survey. We expect it will take about 20-30 minutes to complete, in addition to the time spent gathering your orchard data on things like orchard infrastructure and water, fuel, and fertilizer use.

Significant safeguards are in place to protect the privacy and confidentiality of the data and minimize the risk of breach of confidentiality. Your responses will not be reported individually and any identifying details within the data will be removed when the project concludes. The information will be combined industry-wide to develop the LCA model.

By compiling block-level data from your ranch via this survey, our team plans to assemble a model that represents the industry overall and accurately reflects apple production across our region. In addition, our goal is to develop an LCA tool that will allow you, or others in your company, to calculate sustainability metrics for your operation. This analysis tool – available to all Pacific Northwest apple growers – will help the industry identify practical, region-specific solutions and quantify climate-smart practices already in place.

If you have any questions about the LCA or while completing the survey, please contact Dan Langager at the Northwest Horticultural Council (langager@nwhort.org, 509-453-3193) or the survey’s lead scientist Georgine Yorgey at WSU (yorgey@wsu.edu). If you prefer to fill out a paper survey, contact Heleene Tambet at WSU (heleene.tambet@wsu.edu, 509-293-8798). This study has been determined exempt under IRB #20341; you may contact them at irb@wsu.edu. No compensation will be provided for participation in this study.

The LCA is a collaborative project. We appreciate your willingness to participate in this important effort as we work together to tackle sustainability challenges and opportunities. Thank you very much.

Sincerely,

Ines Hanrahan
Executive Director
WTFRC

Jon DeVaney
President
WSTFA

Mark Powers
President
NHC

Chad Kruger
Director
WSU TFREC & CSANR

The ABCs of LCAs

With grower input, a life cycle assessment, or LCA, of Pacific Northwest apple production will establish a baseline of environmental data.

Why has the industry identified an LCA as a research priority?

As demand for agriculture to reduce its climate impacts continues to build from regulators, retailers, and consumers, tree fruit growers are committed to quantifying those impacts in order to find realistic, actionable solutions for their industry.

The Washington Tree Fruit Research Commission (WTFRC) funded an LCA study to develop a robust and scientifically defensible benchmark of Pacific Northwest apple production's climate data.

Now the research team needs growers' input to build the LCA's confidential apple production and storage data.

What metrics will the LCA analyze?

Growers need climate information specific to their crop in their growing region. This type of LCA research serves as a foundation for quantifying environmental indicators associated with a single production system in a distinct geographic area by establishing an accurate baseline.

In addition to an industry average and range of emissions, the project will provide a scenario analysis tool. The tool will enable producers to customize inputs specific to their growing and/or packing operation, calculate climate metrics (such as carbon footprint), and identify hot-spots to inform changes in management.

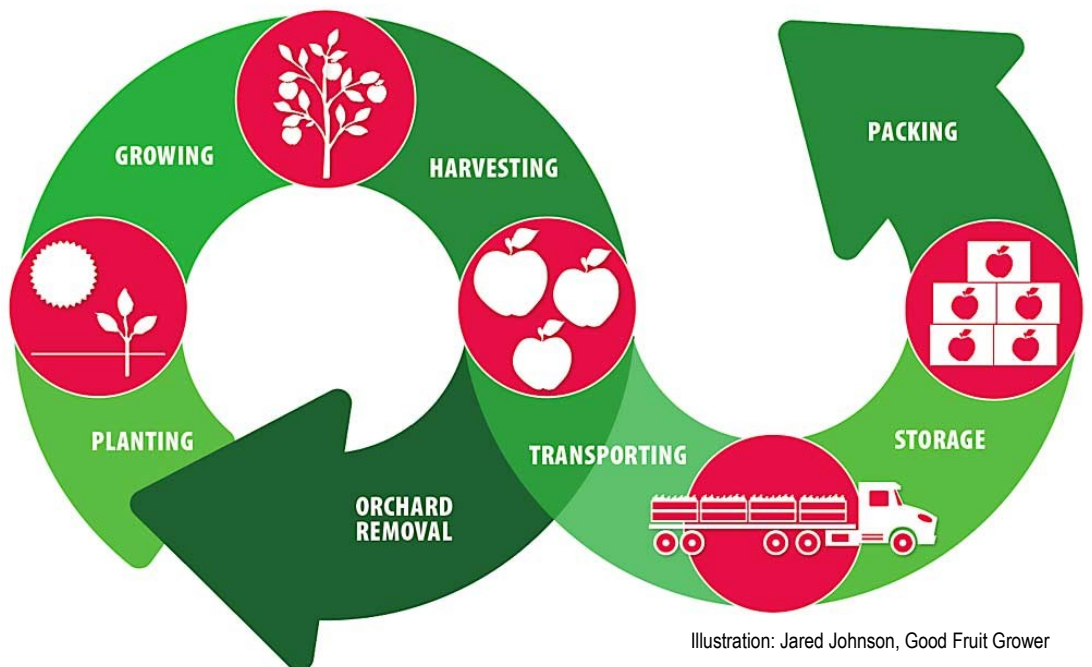


Illustration: Jared Johnson, Good Fruit Grower

The LCA will encompass conventional and organic apple production from planting to packing.

The ABCs of LCAs

Grower input and feedback is essential for the success of the LCA.

Who is involved in the LCA?

The Washington Tree Fruit Research Commission (WTFRC) funded the three-year study. The project lead is Dr. Greg Thoma, a nationally recognized expert in agricultural LCAs, with assistance from the Washington State Tree Fruit Association, Northwest Horticultural Council, Washington State University, Blonk Sustainability, and industry consultants. And you! Grower feedback is critical to accurately assess activity and inputs across an orchard's life.

What are the benefits to the industry?

With the project funded by the WTFRC, our industry can own and manage its climate data. Significant safeguards have been put in place to protect growers' privacy and confidentiality, including "blind aggregation," which means anonymizing any identifying information in the data.

By identifying practices that may negatively impact climate, alternatives and mitigations specific to the Pacific Northwest can be developed. This may include opportunities for:

- Greenhouse gas reductions
- Farm input optimization
- Water and soil conservation
- Transportation efficiencies

In addition to helping identify areas that need improvement, LCA data can substantiate climate-smart practices already in place.

"The LCA can tell the real story of apple production in Washington and the benefits of having a robust apple industry."

- Brent Milne, McDougall & Sons

The LCA baseline data and subsequent analysis tool will help apple growers:

- meet climate-related retailer directives and government mandates.
- be better prepared to participate in voluntary government incentive programs.
- develop and fund future industry research priorities.
- inform the public of their work to contribute to climate change solutions.
- demonstrate a collaborative and forward-thinking approach to difficult issues.

How can you support this effort?

The LCA depends on broad industry participation via the collection of orchard input data. In addition to discussions with orchard managers, an online survey will ask apple growers to answer general questions about one block of their operation in full production, covering orchard infrastructure and water, fuel, and fertilizer use. The survey takes about 30 minutes to complete, with all data provided remaining confidential and anonymized.



To fill out the survey, scan the QR code or go to:
go.wsu.edu/AppleLCA

If you have questions about the LCA or the survey effort, contact Dan Langager at the Northwest Horticultural Council: 509-453-3193, langager@nwhort.org