



Fruit & Vegetable Supply Chains

Climate Adaptation & Mitigation Opportunities

FACTSHEET · 2018

Enhancing the productivity,
resilience, and sustainability
of domestic produce
food systems

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PROJECT WEBSITE

[www.ilsf.org/what-we-do/
nutrition/fruit-vegetable-supply-
chains/](http://www.ilsf.org/what-we-do/nutrition/fruit-vegetable-supply-chains/)

USDA/NIFA AWARD

2017-68002-26789

Using an integrated, collaborative approach, a multi-disciplinary, multi-institutional team co-led by the ILSI Research Foundation and the University of Florida, along with the International Food Policy Research Institute, University of Arkansas, University of Illinois, Washington State University, and World Agricultural Economic and Environmental Services aims to help the United States maintain a nutritious, reliable, affordable, and environmentally sound food supply.

OBJECTIVES

Crop Modeling: Use crop modeling to determine current and future climate and water availability impacts on yield and quality of selected crops in current and potential future production states

Economic Modeling: Use economic modeling coupled to crop modeling results to determine current and future prices and production costs of selected crops.

Life-Cycle Assessment Modeling: Use life-cycle assessment modeling of current and potential future fruit and vegetable value chains to identify and evaluate cost-effective adaptation and mitigation opportunities.

Stakeholders & Extension: Engage stakeholders and decision makers to ensure models reflect realistic practices and model outputs provide useful, actionable information.

ENGAGEMENT

Project Advisory Committee: All portions of supply chains are represented, with members collectively possessing different kinds of technical expertise and local knowledge of all production regions.

Direct Discussions with Stakeholders: Informative exchanges took place with representatives from *Fields to Market*, *World Bank*, and *World Wildlife Fund*, and input from extension experts was solicited during a project workshop hosted by the University of Florida.

Communications: News Releases about the project's launch were picked up across multiple media channels. The project co-leads also organized a breakout session at the *Sustainable Agriculture Summit* and presented at the *USDA/NIFA/AFRI Bioeconomy Agroecosystems Annual Project Director Meeting*.

STATUS

Crop Modeling: Simplified models of the crops chosen for the first year (potatoes, tomatoes, and sweet corn) are being developed, and preliminary results for potatoes and tomatoes have been generated.

Economic Modeling: Data on productivity, costs, and incentives in production areas of interest have been assembled and farm-scale models are in progress.

Life-Cycle Assessment Modeling: Initial supply chain process diagrams have been established, and the team is working on selecting system boundaries, impacts to track, and functional units for analysis.

Stakeholder & Extension: Experts throughout the supply chains have been identified and contacted, and future stakeholder engagement events are being designed.

MILESTONES

Protocol for US Fruit and Vegetable

Crop Modeling: Teams at the University of Florida, Washington State University, World Agricultural Economic and Environmental Services, and ILSI Research Foundation collaborated to produce a protocol for modeling done in support of the project, specifying the representative concentration pathway scenarios, climate models, time intervals for reporting results, baseline definitions, and representative counties. The protocol will ensure that results are fully interpretable when combined or compared with modeling results from the Agricultural Model Intercomparison and Improvement Project (AgMIP).