Addressing Water Variability and Scarcity – The Role of Agricultural Research

ENVIRONMENT AND PRODUCTION TECHNOLOGY DIVISION, IFPRI & THE ILSI RESEARCH FOUNDATION

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In the past year, the ILSI Research Foundation’s work contributed to the following sustainable development goals (SDGs). Icons attached to each pin help signal how our work ties to the SDGs.

**Zero Hunger**
- Vancouver, Canada
  - 2018 Entomology Society of America Annual Meeting (pres.)

**Good Health and Well-Being**
- Washington, D.C., USA
  - Protected Production of Fruits and Vegetables for Nutrition Security in Urban and Per-Urban Environments (org.)

**Sustainable Cities and Communities**
- Paris, France
  - EuropaBio Workshop on Agronomic and Phenotypic Assessment of Plant Varieties (pres.)

**Responsible Consumption and Production**
- Tarragona, Spain
  - Genetic Biocontrol of Invasive Species (org.)

**Climate Action**
- Prosser, USA
  - 2nd Annual Workshop for the Climate Adaptation and Mitigation in Fruit and Vegetable Supply Chains Project (org.)

**Partnerships for the Goals**
- Libreville, Gabon
  - Central Africa Consultative Meeting on Gene Drive Technology (org.)

- Addis Ababa, Ethiopia
  - Anopheles Mosquito Biology Experts Meeting (org.)

- Nairobi, Kenya
  - Water Efficient Maize for Africa Meeting (pres.)

- Dhaka, Bangladesh
  - 6th Annual South Asia Biosafety Conference (org.)

- Manila, The Philippines
  - Science Policy Forum on Science-Based Regulation of Breeding Stacks (pres.)

- Tokyo, Japan
  - Workshop on Application of Data Transportability in the Environmental Risk Assessment of GE Plants (org.)

In the past 12 months, our team engaged with an audience of 2000+ people in 15 countries through meetings, presentations, seminars, conferences, workshops, and symposia. The ILSI Research Foundation website reached 21,700 users.
Our Work

All our programs are for public benefit and focus on contributing to long-term solutions. Our primary areas of activity include:

- Biosafety Capacity Building
- Environmental Risk Assessment
- Sustainable Nutrition Security
- Food and Feed Safety Assessment
**Fruit & Vegetable Supply Chains**

**Climate Adaptation & Mitigation Opportunities**

Enhancing the productivity, resilience, and sustainability of domestic fruit and vegetable systems

**Crop Prioritization**
- Year 1: Tomatoes
- Year 2: Potatoes, Sweet Corn, Spinach
- Year 3: Green Beans, Carrots
- Year 4: Grapes, Oranges, Strawberries, Meions, Broccoli, Onions

**Objectives**
- Identify and test climate adaptation and mitigation intervention strategies that can be applied to enhance sustainability and resilience of fruit and vegetable supply chains in the United States.
- Provide actionable strategies that contribute to a nutritious, reliable, affordable, and environmentally sound food supply.

**Desired Impact**
- Supply decision makers, growers, and other stakeholders in fruit and vegetable supply chains with science-based evidence to adapt to climate change and mitigate environmental footprints (greenhouse gas emissions, land, and water).
- Sustainably deliver the nutritional value associated with greater consumption of fruits and vegetables, which is central to improving diets and combatting obesity in the United States.

**Modeling Workflow**
- Mitigation Scenarios
- Domestic Fruit and Vegetable Production and Prices
- Land Use Change
- Domestic Economic Model
- International Economic Model
- Crop Models
- Hydrology Model
- C and H₂O Footprints (for crop production)

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- University of Arkansas
- University of Illinois
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