



Hawai'i Department of Agriculture  
1428 South King Street  
Honolulu, Hawai'i 96814  
Phone: 973-9550  
Fax: 973-9613  
Website: <http://hawaii.gov/hdoa>

## **Food Self-Sufficiency in Hawai'i**

*A Hawai'i Department of Agriculture White Paper*

December 16, 2008

## Contents

---

<b>Introduction</b>	<b>2</b>
<b>The Issues</b>	<b>3</b>
<b>Recommendations</b>	<b>5</b>
<b>Summary</b>	<b>6</b>

## Introduction

Hawai'i is located approximately 2,506 miles from the continental United States. Between 85-90% of Hawai'i's food is imported, which makes it particularly vulnerable to natural disasters and global events that might disrupt shipping and the food supply.

The Constitution of the State of Hawaii, Article XI, Section 3, says, "*The State shall conserve and protect agricultural lands, promote diversified agriculture, increase agricultural self-sufficiency and assure the availability of agriculturally suitable lands.*"

Increasing food self-sufficiency in Hawai'i will require sound public policies, the best available science, an efficient industry, and a public willing to support local agriculture. It requires protecting agricultural land and water, enhancing food safety, investing in agricultural research, and addressing rising costs for labor, energy, and transportation.

Food self-sufficiency policies that raise production and demand of locally grown foods have direct and indirect benefits for Hawai'i.

Direct benefits:

- Increases self-sufficiency and local production of food.
- Reduces dependence on imports.
- Diversifies the economy.
- Stimulates the local economy. Keeps money circulating in Hawai'i's economy versus supporting agribusinesses in other states or countries.

- Decreases vulnerability to food supply disruptions resulting from worldwide economic events and/or natural disasters.

Indirect benefits:

- Reduces the risk of importing invasive species.
- Decreases the food miles of transporting foods and thus conserves energy and reduces Hawai'i's carbon footprint.
- Promotes healthier lifestyles and good nutrition. (Fresher produce generally means greater vitamin content and higher nutritional value.)
- Preserves Hawai'i's scenic vistas by ensuring open working landscapes of green farmland.
- Supports agri-tourism by enhancing the island experience for Hawai'i's visitors.

The term food security encompasses three major elements: availability, access, and utilization. Food *availability* refers to the overall supply of food from domestic production and net food imports. Food *access* refers to the household's ability to get food from its own production, in the marketplace or from other sources such as barter or gifts. Access depends largely on household purchasing power. Food *utilization* is determined by food safety and quality, how much a person eats and how well a person converts food to energy, all of which affect proper biological use of food, nutritional status and growth (*Food and Nutrition Security in the United*

*States-Affiliated Pacific Islands*, George Kent, Nov. 13, 2008).

For the very poor, food security means providing an adequate amount of food to maintain a healthy life. While rising food prices have affected nearly everyone, it has caused disproportionate hardship among the low-income population. There are federal nutrition assistance programs that address this sector of the population, for example, the Supplemental Nutrition Assistance Program (SNAP), The Emergency Food Assistance Program (TEFAP), the Senior Farmer's Market Nutrition Program (SFMP) and the Women, Infants, and Children program (WIC). Not-for-profit organizations such as the Food Bank and churches also assist in providing food for those in need.

For most of Hawai'i's people who have discretionary income that allows them to make consumer choices, food security means becoming more self-sufficient in providing our own food, i.e. reducing imported foods.

The focus of this paper deals with the latter aspect of food security, more specifically, increasing food self-sufficiency in Hawai'i.

## The Issues

Hawai'i has been hard hit by global economic events. Fluctuating oil prices, rising food costs, and the worldwide financial crisis have contributed to a downturn in Hawai'i's visitor arrivals, lowered economic forecasts, and rising unemployment. These events highlight the importance of food self-sufficiency and food sustainability priorities for Hawai'i.

A 2007 study conducted by the Rocky Mountain Institute estimated that 85% of the

food we consume is imported; others estimate that it's actually 90% or more. This dependence on imported food makes Hawai'i particularly vulnerable to food supply disruptions and increases the risk that invasive species will enter the state, causing irreparable harm to Hawai'i's fragile environment and the local agricultural industry.

*The Economic Impacts of Increasing Hawai'i's Food Self-Sufficiency* report noted, from 1994 to 2005, Hawai'i continued to become more reliant on imports. A reduction in dependency on imported food is a worthy public policy goal, however, it wouldn't be practical to expect to achieve 100% food self-sufficiency.

The impact of food import replacement is significant. Replacing just 10% of the food we currently import would amount to approximately \$313 million. Assuming a 30% farm share, \$94 million would be realized at the farm-gate, which would generate an economy-wide impact of an additional \$188 million in sales, \$47 million in earnings, \$6 million in state tax revenues, and more than 2,300 jobs (PingSun Leung and Matthew Loke, Dec. 2008).

Hence, it is a good time for farmers and landowners, industry stakeholders, community members and government leaders to focus on Hawai'i's food self-sufficiency.

**Increase Production: Support a viable agriculture industry.**

There can be no local food without local farms. Increased food self-sufficiency in Hawai'i requires a sustainable agricultural industry. Requirements for a viable agricultural industry include:

- Land: Protect good agricultural land and provide long term leases and reasonable lease rents for farmers.
- Water: Maintain aging irrigation systems and plan and develop new systems. Ensure access to reliable, consistent and affordable water for agriculture.
- Energy: Address rising transportation, fertilizer, fuel, electricity, feed and other input costs.
- Labor: Develop programs to ensure agricultural labor availability and agricultural worker housing.
- Research: Support ongoing research to improve production, processing, and post-harvest handling; increase efficiency and yield; decrease inputs; and manage diseases and pests.
- Distribution: Encourage efficient distribution systems to move food to the marketplace including cost-effective transportation.
- Food Safety: Assist adoption of food safety practices throughout the food chain.

**Increase Demand: Reconnect Hawai'i's people to farming; increase demand for locally grown produce.**

People need to understand agriculture and care about it to support it in the marketplace, at the legislature, and in the choices they make everyday. Public awareness programs and marketing campaigns are instrumental in promoting locally grown products and encouraging the public to seek and purchase local produce. Marketing campaigns will help to develop strong community

connections to the farmers, increase demand, visibility, consumption and familiarity with locally grown products and increase sustainability for Hawai'i's agriculture. Increased awareness will promote eating more fresh fruits and vegetables which will support healthier lifestyles and better nutrition for island families.

Buying locally produced goods keeps money circulating in Hawai'i's economy versus supporting agribusinesses in other states and countries. Also, increasing the amount of locally grown food reduces the need for imported food, increases self-sufficiency and decreases the risk of importing invasive species.

### **Recommendations**

While many efforts are already ongoing to support agriculture, more is needed particularly now as global economic events threaten the viability of farmers in Hawai'i.

#### **Assure Land, Water and Infrastructure.**

- Develop an equitable process for land and water allocation that acknowledges the importance of food production.
- Preserve good agricultural lands through purchase, designation of Important Agricultural Lands (IAL), agricultural easements, and long-term leases; prevent non-agricultural uses on those lands.
- Invest in infrastructure, particularly for irreplaceable irrigation systems.

#### **New Farmers and Agricultural Workers**

- Develop educational programs that encourage career paths in agriculture.
- Support national reform for easier use of foreign agricultural workers
- Facilitate development of agricultural worker housing (and affordable housing.)

#### **Raising Public Awareness and Increasing Demand**

- Connect people to farming and farmers; teach them where food comes from and what it takes to grow it.
- Implement marketing campaigns such as Buy Fresh, Buy Local to increase demand for locally grown foods. Create "pull" through the retail chains.
- Promote Farmers' Markets where people can talk to real farmers.
- Encourage public institutions to buy locally grown foods.

#### **Farm Viability**

- Develop programs to help farmers manage the rising cost of inputs (fertilizer, feed, electricity, transportation, labor) to increase profit margins.
- Assist farmers in adopting technology and systems to comply with food safety and regulatory requirements.
- Support biosecurity efforts to prevent, control and address invasive species, which add costs to farming and decreases yields.
- Invest in research to continually develop new varieties, products and processes; improve efficiency and reduce costs on the farm; and develop best practices.

## **Summary**

Global events have resulted in troubling forecasts for our tourism based island economy. These sobering economic projections have focused attention on food self-sufficiency policies in Hawai'i.

This is a critical time for agriculture in Hawai'i. We risk losing prime agricultural land, water systems, and farmers, which will diminish our ability to increase the production of locally grown food. If these trends are not reversed, we will become increasingly dependent on imported food and our food supply will remain vulnerable to fluctuating global conditions and food supply disruptions.

Hawai'i has an opportunity to increase local production and self-sufficiency. We can set a clear course to improve Hawai'i's food self-sufficiency and strengthen our agricultural industry for generations to come.