



USDA Foreign Agricultural Service

# GAIN Report

Global Agriculture Information Network

Template Version 2.07

Voluntary Report - public distribution

**Date:** 2006/4/27

**GAIN Report Number:** TW6014

## Taiwan

### Market Development Reports

### Assessment of Nutrition and Consumption of Fruits and Vegetables in Taiwan

### 2006

**Approved by:**

Alan Hallman  
AgTaipei

**Prepared by:**

P. Thao Hung

---

**Report Highlights:**

Although Taiwan is known to be a fairly health-conscious society, recent studies have shown that 70% of the Taiwan population eats less than 3 servings of fruits and vegetables a day, placing Taiwan consumers well under the goal of 5 servings of fruits and vegetables per day targeted by nutritionists both in Taiwan and US. While the average consumer understands the value of consuming more fruits and vegetables and, indeed, believes him/herself to be eating a relatively healthy diet, dietary and health trends speak otherwise. A more aggressive nutritional campaign, focusing on the importance of increased fruits / vegetables in the diet (e.g., the "5-a-Day" program) can be expected to improve Taiwan's diet and improve sales of US produce in this market.

---

Includes PSD Changes: No  
Includes Trade Matrix: No  
Unscheduled Report  
Taipei [TW1]  
[TW]

**Table of Contents**

**Executive Summary** ..... 3  
**Current Demand and Market Share for US Fruits and Vegetables** ..... 3  
**Consumer Profile** ..... 4  
**Key Players in Health Promotion in Taiwan**..... 5  
    Department of Health..... 5  
    City/County Bureau of Health ..... 6  
    Private Health Foundations ..... 6  
**Opportunity** ..... 7

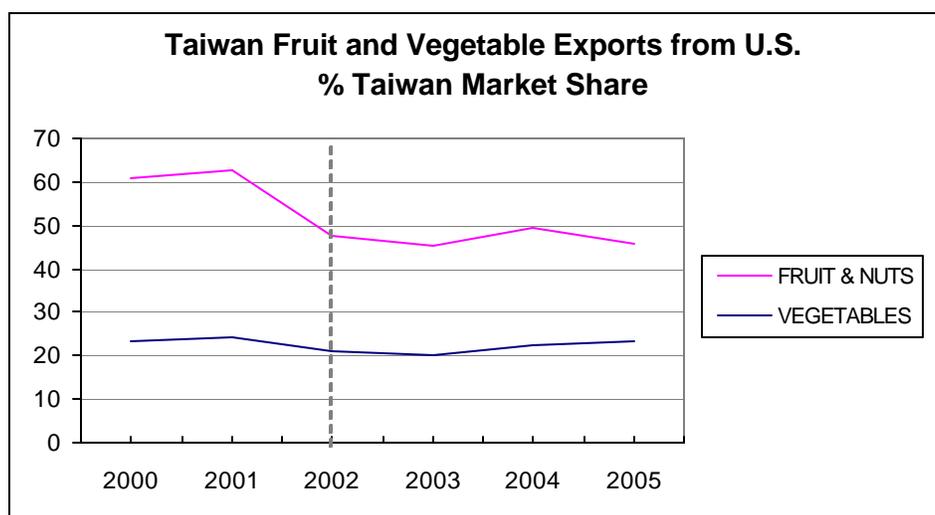
## Executive Summary

Prior to 2002, U.S. agricultural products, specifically fruits and vegetables, enjoyed being the dominant agricultural import source to Taiwan. Since Taiwan's accession to the WTO, U.S. agricultural market strength has faced increased competition, requiring action to keep and increase existing volumes for U.S. agricultural products. An opportunity to boost volumes can be found in Taiwan's growing trend of poor eating habits that is low in fruit and vegetable consumption. This report identifies the need, opportunity, and key players that can help further U.S. agriculture interests by promoting healthy eating of U.S. fresh fruits and vegetables in Taiwan through an island-wide, nutrition promotion program.

## Current Demand and Market Share for US Fruits and Vegetables

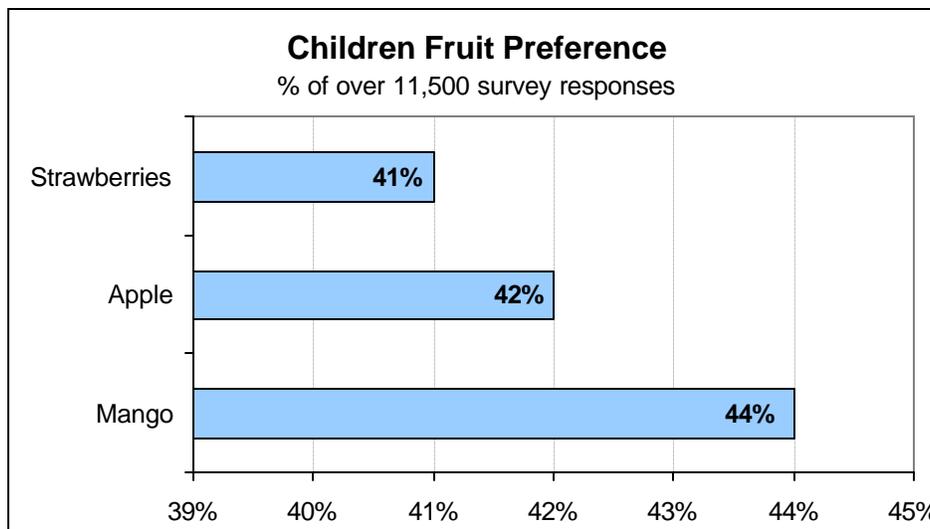
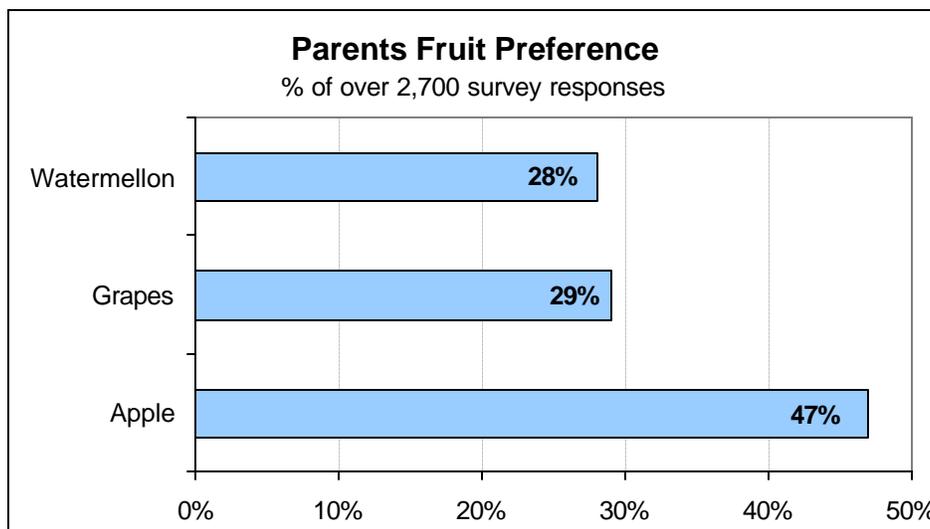
With 23 million people living on 13,900 square miles of land, approximately the size of Delaware and Maryland combined, Taiwan relies heavily on agricultural imports. Taiwan has historically proven to be a solid market for U.S. agriculture products, specifically in imports of vegetables and fruits. With a limited amount of variety in fruit and vegetable production, Taiwan relied heavily on imports from the U.S. prior to its entrance to the WTO. Second only to domestic growers, the U.S. is the largest international supplier of fruits and vegetables to Taiwan. In 2005, the United States exported more than \$110 million in fruits and vegetables to Taiwan. Annual fruit and vegetable domestic consumption total 2.9 million metric tons and 3.16 million metric tons per year respectively. U.S. imported fruit makes up approximately 12%, and imported vegetables makes up 9%, of total domestic Taiwan consumption.

Since Taiwan's accession to the WTO in 2002, U.S. agriculture has faced increased competition, and has lost market share. The drop in market share can be seen most prominently within U.S. fruit exports while our market share for vegetables may be slipping as well. Marketing that differentiated U.S. fruits and vegetables may positively impact this downward trend.



**Consumer Profile**

There is a portion of health-conscious consumers that are ideal customers for U.S. agriculture products. A recent survey conducted by the Formosa Cancer Foundation (FCF), a private cancer prevention health foundation, on fruit and vegetable consumption habits of Taiwanese children and their parents, revealed promising evidence that eating healthy in Taiwan is not a bygone trend. According to the survey sample of over 14,000 responses, 75% of adults enjoy eating vegetables while 84% of children enjoy eating vegetables. Moreover, survey respondents accepted the notion of a balanced diet of 5 servings of fruits and vegetables a day. More than half respondents including both parents and children, 68% and 71% respectively, eat most of their daily fruits and vegetables unprocessed in original form. Both children and parents enjoy eating fruits. After Canada and Mexico, Taiwan is the third largest apple importer of U.S. apples. As expected, apples happen to be a common favorite for both parents and their children in Taiwan. The charts below indicate the top three fruit preferences for parents and their children.



As the evidence from the FCF survey help illustrate, Taiwan consumers have been known to be health-conscious consumers, but recent studies have also shown that a growing number of Taiwanese are choosing a less healthy diet. Poor eating habits start with Taiwan's youngest consumers. A survey conducted by the John Tung Health Foundation, a private health promotion foundation in Taiwan, of 742 kindergartens across Taiwan revealed that snacks high in sugar, salt and oil content were distributed to children in five out of 10 school snack times during the course of the week. A significant number of Taiwan consumers are putting minimal thought on actively consuming fruits and vegetables. Another study by FCF concluded that 70% of the Taiwan population consumes less than 3 servings of fruits and vegetables a day. The United States is only slightly better, where 65 percent of the population consume less than three servings a day. However, government, public, and private sector partnerships in the U.S. address the need for healthier eating with a 5-a-Day campaign from the national to the local levels to promote fruit and vegetable consumption.

In Taiwan, a mixture of both Eastern medicine concepts of nutrition and acceptance of Western science co-exist and affect consumer decision-making. The concept of nutrition has cultural facets influenced by traditional Eastern medicine practices. Specific benefits are attached to certain foods with accepted wisdom that if consumed, a particular disease or ailment can be resolved. Foods are cautiously chosen based on the individual's needs or ailments. This theory of nutrition can include food items that are not scientifically-proven healthy, but under this commonly accepted nutrition philosophy consumption of a variety of fruits and vegetables is encouraged.

Beyond understanding that certain foods including fruits and vegetables provide benefits to one's health, changes in lifestyle including eating out more and working in high stress environments has altered the Taiwanese diet. Small eateries and fast food restaurants are very popular, catering to the increasing number of consumers that have little time to eat. Taiwan families are dining out more on food that is quick on delivery but short on greens and generous with fat, oils, and starches.

### **Key Players in Health Promotion in Taiwan**

There are three main players in health promotion in Taiwan. Taiwan's Department of Health is the main authority facilitating health promotion messages at the federal level. Health promotion is also implemented at the local city and county health bureaus, notably through their influences in community outreach programs. Under guidance and funding from DOH, local health authorities, and private donations, health foundations are also key players in Taiwan health promotion.

### **Department of Health**

In terms of health promotion activities in Taiwan, the Department of Health (DOH) is accountable for promoting health and facilitating national health guidelines. Spearheading health promotional efforts is the DOH Food and Sanitation Bureau. DOH annually generates a health theme consistent with its overall health guidelines. Taiwan's official health guidelines include:

1. Keep an ideal weight
2. Vary foods to maintain a balanced diet
3. Eat 5 different grains during the 3 daily meals
4. Consume high-fiber foods
5. Eat less salt, grease, and sugar
6. Consume high-calcium foods
7. Drink more water
8. Reduce liquor consumption

DOH, in addition to consulting scientific research, also takes traditional Eastern Medicine theories into consideration and because of this, is reluctant to impose federal policies upon individuals. The official Taiwan health messages, including the annual health theme are intentionally wide-ranging. Specifying any of these guidelines might mislead an individual to a food that is not appropriate for that individual. In this sense, DOH health guidelines are deliberately vague, relying on nutritionists to formally determine an individual's health needs.

With the aim of advocating these guidelines to the end consumer, DOH uses government funding to provide grants for health advocacy projects. DOH decides on a message consistent with official health guidelines, determines the target audience, and makes the project available for bidding. Non-profit organizations that work in health advocacy-related matters compete for the funding by submitting activity proposals that adhere to the desired DOH message. Once the funds have been allocated, DOH follows up during the project to review the foundation's progress and compliance with DOH mandates.

### **City/County Bureau of Health**

DOH has affiliate offices at the city and county levels. Health promotion activities are limited to area of jurisdiction at this level, vary by location, and are more focused on health measurement rather than direct promotion. Through their efforts to coordinate school lunch programs, train nutritionists, and provide community outreach, these offices offer excellent access to larger consumer populations without losing a target consumer focus.

### **Private Health Foundations**

Health messages at the consumer level are coordinated and distributed by many health foundations using private and DOH funding. These foundations work closest with consumers to encourage healthy lifestyles at the grassroots level. Foundations take proactive approaches advocating health on behalf of DOH. Besides bidding on projects proposed by DOH, foundations also have the option to propose projects that vie for DOH funding. A foundation generates an idea or campaign that is compliant with DOH health guidelines and receives funding from DOH to execute the project. These foundations also have the flexibility to request backing from other government offices, for example, accessing student consumers through the Ministry of Education (MOE) sponsorship and funding.

A foundation's scope of influence varies depending on the project and funding. Most foundation operations are concentrated in Taipei where the population is most dense. Health promotion programs often attempt to reach farther south on the island to major cities including Kaohsiung and Tai Nan through local nutritionists or health bureaus. The current rudiment form of a 5-a-Day program in Taiwan is a good example of the health promotion situation in Taiwan. Through the efforts of the Formosa Cancer Foundation, Taiwan has been exposed to a 5-a-Day program since 1999 because of the cancer risk-reducing benefits to consuming fruits and vegetables. DOH has also supported dissemination of this message because of the campaign's consistency with general DOH mandates. The Foundation uses DOH-funded workshops to train secondary school nutritionists invited from different cities in Taiwan, on how to communicate the 5-a-Day programs to their students. MOE endorses FCF and offers access to school nutritionists for their program advocacy. Through this method, the 5-a-Day message is distributed throughout the island. This grass-roots arrangement to convey the message is slow to influence national eating habits.

## Opportunity

Taiwan's weakness in health advocacy lies in its passive approach to define and communicate a federal health campaign that not only inspires healthy eating habits, but also influences consumer decision-making on a practical level. DOH's general health mandates, together with campaigns from varying health foundations, leave Taiwan with health messages that seem inconsistent and weak compared to temptations from less healthy alternatives. The population's worrisome eating trend coupled with DOH's desire to promote health presents a unique opportunity for U.S. agricultural products.

U.S. agriculture interests can help strengthen a weak health message and raise demand for healthy products like fruit and vegetables by sponsoring a "5-a-Day"-type program along the lines that have been historically successful in other countries. By positioning U.S. fruits and vegetables as a healthy, preferred, and high-quality product, U.S. agriculture interests can offer a mutually beneficial program to improve health in Taiwan. Taiwan health authorities have been receptive with FCF's approach to a 5-a-Day program in Taiwan. Moreover, private health advocacy foundations like the FCF offer existing arrangements in contacts, market knowledge, and domestic presence for easy implementation of such a nutrition-focused program in Taiwan.

U.S. agricultural products face an increasingly competitive market and a continuing battle to stabilize and increase market share. Capitalizing on this opportunity to increase overall consumption of fruits and vegetables, in addition to positioning U.S.-produced products as a healthy and preferred product, can positively affect future trade volumes.