Keeping Track of Food Production From Space

While USDA has monitored crops around the world for almost a century, the discovery that satellites can “see” greening of vegetation has revolutionized agricultural monitoring for food security. The development of the GLAM system in the 1980s, a collaboration with USDA and the International Production Assessment Division, has helped governments to assess whether or not there will be enough basic food crops to feed their populations, as well as provide international food aid organizations with a tool to predict where food shortages might occur.

How Satellite Maps Help Prevent Another “Great Grain Robbery”

The need for crop intelligence dates back to 1972. In July of that year, the Soviet Union purchased 15 million tons of wheat, corn, soybeans and barley from the United States at low subsidized prices. Russia was experiencing severe drought and needed foreign grain. But the massive purchase, which took the United States by surprise, depleted the country’s grain stocks and caused wheat prices to soar, resulting in a domestic food crisis. Later nicknamed The Great Grain Robbery by congressional leaders, the event highlighted the need for global agricultural monitoring, and it just happened to coincide with a satellite that could provide just that: NASA’s Landsat 1.

NASA Earth Observations Help Kenya Aid Program Reach More Farmers

Agriculture officials in Kenya now have help pinpointing exactly where farms are thriving or struggling. They’re using views from above provided by NASA satellites to help direct support where it is needed most.

From Seed to Market: NASA Brings Food to the Table

Overview of how NASA satellite and Earth science data supports the entire life-cycle of agriculture, from seed to market.

The Value of Satellite Data for Agriculture Markets

Joe Glauber of the International Food Policy Research Institute is a NASA Harvest expert on domestic strategy relating to the economics of information, market information systems, commodity forecasting, and food price volatility. His work with Harvest focuses on estimating the value of Earth observation (EO) data in improving crop production forecasts specifically related to market effects. In a recent interview, Joe explains how long term EO data has been critical to understanding crop forecasts and their potential impact on markets.

NASA works with farmers and others to get actionable Earth science data into the hands of decision-makers, in time for them to make important decisions on planting, irrigation, and long-term market-based decisions.