

### **Annual Performance Report**

he United States Department of Agriculture's (USDA) mission is to provide leadership on food, agriculture, natural resources and related issues based on sound public policy, the best available science and efficient management. The Department executed this mission in FY 2006 through such activities as:

- Providing farmers and ranchers with risk management and financial tools;
- Meeting with experts from around the globe to discuss current and emerging economic opportunities;
- Ensuring the safety and protection of the Nation's food supply;
- Helping millions of low-income households and most of America's children improve their health and diets via targeted nutrition assistance programs;
- Fostering better nutrition and health with dietary guidance and promotion;
- Completing new free trade agreements, opening new international markets and maintaining existing markets;
- ► Fighting potential pests and disease outbreaks;
- Working to ensure the health and protection of the environment; and
- Providing aid to those impacted by severe weather and other disasters.

USDA's public performance management reporting process includes:

- A strategic plan that contains the Department's longterm goals and strategies (www.ocfo.usda.gov);
- An annual budget summary and performance plan that outlines strategies and targets for achieving USDA's long-term goals (www.obpa.usda.gov); and
- A performance and accountability report that illustrates to the American people and Congress how well the Department did in reaching its goals.

Most of USDA's programs and activities are represented in specific performance goals and targets. The Department also conducts and supports a broad range of research, educational and statistical activities that contribute to the achievement of each of its overall goals. The creation of knowledge at the frontiers of physical and social sciences, and the provision of that knowledge to agriculture, forestry, consumers and rural America are fundamental to the Department's success. Accordingly, selected accomplishments in research are presented throughout this report. Data collection methodology is standardized and transparent and is vetted by scientists, policymakers, and undersecretaries. Methodology is available to the public through program administrators.

As part of the President's requirements to assess the effectiveness of USDA programs, each program is measured using the Program Assessment Rating Tool (PART) review. The PART identifies how well and efficiently a program is working and what specific actions can be taken to improve its performance. Other program evaluations, which discuss the achievements or

conclusions from the completion of internal and other external assessments conducted during Fiscal Year (FY) 2006 related to the measures, are also included. Only Federal employees participated in the preparation of the performance information contained in the report.

When he created the USDA, it was President Abraham Lincoln's hope "that by the best cultivation in the physical world, beneath and around us, and the intellectual and moral world within us, we shall secure an individual, social and political prosperity and happiness, whose course shall be onward and upward, and which, while the earth endures, will not pass away." The following chapters of the *USDA Performance and Accountability Report* show how the Department committed itself to keeping President Lincoln's dream alive during FY 2006.

## Strategic Goal 1: Enhance International Competitiveness of American Agriculture



A prosperous food and agricultural sector contributes to the Nation's economic vitality and standard of living. The sector's success depends on the ability to expand into new markets, raise capital, protect itself against financial risk and adjust to changing markets. Increasing the efficiency of the agricultural sector and developing new uses for agricultural products are critical to the Nation's economic health.

Expanding global markets for agricultural products is critical for the long-term economic health and prosperity

of the domestic food and agricultural sector. America's natural resources, technologies and infrastructure enable agricultural production beyond domestic needs. Expanding global markets will increase demand for agricultural products and contribute directly to economic stability and prosperity for America's farmers. To expand overseas markets and facilitate trade, USDA assists in the negotiation, monitoring and enforcement of trade agreements. Working with producers and commodity trade associations, USDA administers an array of market development and export promotion programs designed to build long-term markets abroad. The Department helps expand trade opportunities through technical assistance and training programs. These tools support agricultural development and growth in developing countries. They also help these countries participate in, and benefit from, international trade. USDA works to facilitate trade by adopting science-based regulatory systems and standards.

## OBJECTIVE 1.1: EXPAND AND MAINTAIN INTERNATIONAL EXPORT OPPORTUNITIES

#### Overview

U.S. agricultural exports rose on broad-based gains for many products to a record \$68.7 billion in FY 2006, up \$6.2 billion from the previous year. This included a \$1.8-billion increase in horticultural exports, mostly due to strong foreign demand and higher prices for many products. Gains for tree nuts and fresh fruit especially were strong. Corn exports rose \$1.5 billion mostly on increased volume supported by a large U.S. crop and reduced foreign competition. Livestock product exports rose \$1.2 billion supported by gains for beef, pork and animal hides. Cotton exports jumped \$800 million on record sales to China and higher prices.

The Department works with the World Trade Organization (WTO) to establish export opportunities for U.S. agricultural producers. The WTO is charged with administering trade rules among its 149 member countries and customs areas. While the goal of reaching agreement on the outline of a new multilateral trade agreement by this past summer was not reached and efforts were

suspended in July 2006, USDA continues working with Office of the U.S. Trade Representative (USTR) and its trading partners to reach that goal. The Trade Representative is the lead trade negotiator for the U.S. Government.

In 2006, free trade agreements with Nicaragua, El Salvador, Honduras, Guatemala and Bahrain took effect. The Dominican Republic will follow, and Costa Rica's new government is expected to ratify the Central American Free Trade Agreement (CAFTA) soon. CAFTA is a comprehensive trade agreement among Costa Rica, the Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua and the U.S. Agreements have also been reached with Peru and Colombia. These agreements require congressional approval.

USDA also continues work on other free-trade agreements, notably with Korea and Malaysia, which are expected to create new opportunities for U.S. agricultural exports. The Department looks to conclude these agreements prior to the 2007 expiration of the Trade Promotion Authority (TPA).

USDA also continues to monitor the impact of the North American Free Trade Agreement (NAFTA), a comprehensive trade-liberalization agreement between the U.S., Canada and Mexico. U.S. agricultural exports to its NAFTA partners continue to set records. Canada remains the largest market with U.S. sales at a record \$11.6 billion in FY 2006. Canada is a major market for U.S. fresh and processed fruits and vegetables, snack foods, juices, wine and many other consumer-ready products. At a record \$10.4 billion in FY 2006, Mexico remains the second largest market for U.S. agricultural exports having overtaken Japan in 2005. Mexico has enjoyed strong economic growth, with increased demand for foreign goods. While Mexico is a large buyer of coarse grains, soybeans, cotton and wheat, higher-value consumer foods are increasingly important. Strong Mexican demand is behind rising sales of U.S. pork, beef, poultry, fresh and processed fruits, and snack foods.

U.S. agricultural exports to Japan were \$8.2 billion, making it the third-largest market. About 60 percent of sales to Japan consist of bulk and intermediate commodities, mainly coarse grains, soybeans, wheat and animal feeds. The rest of the sales are consumer-ready foods, mainly pork, fresh and processed fruits and vegetables, and tree nuts. Japan recently announced that it will resume beef trade, which had reached an annual level of \$1.3 billion before the market was closed due to a finding of *bovine spongiform encephalopathy*, a chronic degenerative disease affecting the central nervous system of cattle.

The EU remains the fourth-largest market for U.S. agricultural products. It realized sales of \$7.1 billion in FY 2006, up slightly from the previous year. The EU is a major market for soybeans, tobacco and animal feeds. It is also an important market for selected consumer foods and beverages, most notably tree nuts and wine. Opportunities remain limited in most other categories due to production subsidies which keep domestic supplies high, trade barriers that limit market access, and highly-competitive processed food industries.

U.S. agricultural exports to China, the fifth-largest market, reached a record \$6.7 billion in FY 2006. Exports to China have risen rapidly in the past few years, mostly due to record soybean and cotton sales. China is also the largest market for U.S. animal hides. While for the most part U.S. consumer food sales remain modest, China has become an important poultry meat market and sales are rising for fresh fruit, tree nuts and many other consumer foods. China's trade barriers are being reduced through its WTO membership, producing dividends which will continue for the next several years.

In 2006, the EU was the fifth-largest market for U.S. agricultural products with sales of \$6.6 billion, down from \$6.9 billion in 2005. The EU is a major market for soybeans, tobacco and tree nuts — especially almonds. Wine sales are also noteworthy; wine is among the top five U.S. agricultural exports to the EU. Opportunities remain limited in most other categories. Production

subsidies in the EU keep domestic supplies high, and trade barriers limit market access. Expansion opportunities for U.S. agricultural exports to Europe remain limited.

#### **Key Outcome**

Increased Access to Global Markets for U.S.
Agricultural Producers and Exporters

USDA works closely with the USTR and other government agencies to pursue new trade agreements. These groups also work to enforce the provisions of existing agreements, providing U.S. exporters and consumers with the full economic benefit of trade agreements and rules. USDA also works to maintain effective government-to-government relationships that support open trade. Open trade will lead to increased export opportunities for U.S. farmers and agribusinesses. The Department's industry partners promote trade and outreach activities to educate producers, processors and exporters on emerging market opportunities as a result of trade agreements. To capitalize on trade opportunities, USDA offers market intelligence, supply and demand forecasts, and sales-development assistance to enhance U.S. exporters' success in the highly competitive global marketplace.

### **Selected Results in Research, Extension and Statistics**

Controlling Flies in Exported Hay—The opportunity to export hay to Japan has been enhanced by its acceptance of phosphine fumigation as a quarantine treatment for polyethylene wrapped bales of Timothy hay. USDA scientists developed this treatment to control Hessian flies in hay. The treatment capped three years of collaborative research with the National Hay Association. It will help support a \$70 million hay export market with Japan. Additionally, certification of the quarantine treatment by the Japan Ministry of Agriculture, Forestry, and Fisheries supports a \$360 million market to Pacific Rim countries.

#### **Improved Wheat Variety for Competitive Noodle**

Market—South Dakota State University, with USDA funding, has developed a healthier wheat flour of hard white winter wheat. Its creation assures U.S. competition in the growing noodle markets domestically and in southeast Asia, and in the flatbread markets of the Middle East and North Africa. This variety, "Wendy," is known for high protein content, does not require sugar to be added to the dough, and is low in an enzyme that causes noodle discoloration.

Consumption and marketing patterns are changing rapidly in China, the world's largest consumer of many U.S. agricultural commodities. These changes are generating uncertainty for food marketers. A USDA-funded conference, "Assessing the Chinese Market for U.S. Agricultural Products," featured Chinese economists who provided current information and outlooks on agricultural trends. WERA-101 efforts to facilitate cooperation between scholars researching China's agriculture also have enhanced management information available to U.S. producers and processors greatly. (WERA-101 refers to conferences organized to assess important trends in China's agricultural economy.)

Facilitating Sales to Foreign Markets—Global Marketing Support Services (GMSS) has provided access to exporting resources and opportunities to companies interested in expanding international sales. Partially supported with USDA research and extension formula funding to the University of Arkansas-Fayetteville, GMSS activities have created 120 new jobs, \$3.4 million in labor income and \$5.5 million in value added to the Arkansas economy.

#### India's Emerging Global Presence—USDA

research shows how commodity trade patterns are changing with India's rising income. It also shows that decreasing protectionism can further trade and improve welfare. For example, the apple report indicates that investment and open market competition that reduce high internal marketing costs and margins offer scope for

significant gains in Indian apple consumption and imports.

USDA World Trade Negotiations— USDA research on trade policy provided analytical support to help inform and strengthen U.S. negotiating positions on agriculture. The analysis focused on the implications of U.S., European and other proposals for reforming global trade. USDA developed quantitative estimates of the impacts of market access and export subsidy liberalization under each of the main proposals and those on U.S. trade and farm income. Recent work examined the impacts of dairy policy reform on global dairy markets. The resulting report suggests that foreign dairy policy reform would result in lower global supplies of milk and dairy products, higher world dairy prices and higher value of dairy trade.

#### **Challenges for the Future**

USDA can increase export opportunities for the U.S. through a WTO agreement providing new rules for agricultural trade while working to complete other bilateral free trade agreements. New WTO rules would eliminate export subsidies, decrease trade-distorting domestic support and reduce market-access barriers around the world. Agriculture is a central theme for this round of WTO negotiations and a sensitive issue for most developing countries. In these countries, the food and agriculture sector is the dominant economic driver. Free trade agreements with Malaysia and Korea will lead to access to critical markets in Asia. If TPA is extended, USDA will be able to engage in even more marketopening activities. TPA is designed to enable U.S. negotiators to lead the way in completing major new trade agreements that advance the global interests of domestic agriculture. USDA will also continue to monitor the implementation of existing agreements to preserve existing trade and expand markets.

#### **Analysis of Results**

USDA did not reach its performance goal of \$900 million because Costa Rica and the Dominican Republic did not ratify and implement CAFTA, and because of delays in finalization of the Peru and Colombia Free Trade

Agreements. There were no large, unexpected threats addressed under Department monitoring and enforcement activities except for those related to sanitary and phytosanitary (SPS) barriers, which are accounted for separately under Objective 1.3. SPS refers to measures imposed by governments to protect human, animal and plant health from foreign pests, diseases and contaminants. The number of trade maintenance issues and their potential impact on U.S. exports depends primarily on foreign governmental action. Both the problems and the solutions are highly unpredictable. Solutions can range from a quick agreement with officials at the port of entry to a long negotiation process followed by a lengthy regulatory or legislative process. The cost of an action can range from a few thousand to billions of dollars

USDA's selection of this performance measure demonstrates the critical role that the negotiation and enforcement of trade agreements play in expanding and maintaining export opportunities. As the U.S. continues to negotiate new bilateral, regional and multilateral trade agreements, the challenge will be to monitor and enforce compliance. Monitoring will ensure that U.S. agriculture receives full benefits from negotiated reductions in tariff barriers.

The exact value of new markets opened through trade agreements is difficult to determine using traditional economic models. In a new market, there are little data to estimate consumer demand. Market development takes time and centers on consumer and wholesaler education to create a desire to purchase U.S. products, rather than those of competitors. Therefore, it is difficult for USDA to estimate the impact of monitoring and enforcement efforts. Instead, the Department tracks only instances in which there is a clearly defined and imminent threat, which is then acted upon.

The figures in the accompanying exhibit reflect the uncertainty of trade negotiations and disruptions. Next steps include completion of the Doha Round of agriculture negotiations, various bilateral and regional

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free trade agreements, and continued monitoring and enforcement of existing agreements that affect U.S. agriculture. (The Doha Round refers to multilateral negotiations to liberalize trade.)

**Exhibit 17:** Increase U.S. Export Opportunities

		Fiscal Year 2006		
	Annual Performance Goals and Indicators	Target	Actual	Result
1.1.1	Dollar value of agricultural trade preserved through trade agreement negotiation, monitoring, and enforcement (non-SPS) (\$ Mil)	\$900	\$14	Unmet

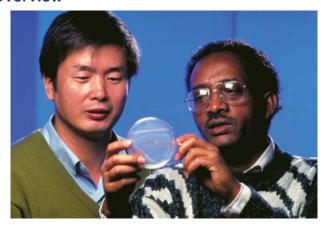
#### Exhibit 18: Trends in Expanding and Retaining Market Access

		Fiscal Year 2006				
	Trends	2002	2003	2004	2005	2006
thro moi	lar value of agricultural trade preserved ough trade agreement negotiation, nitoring, and enforcement Vill) Baseline: 1999 = \$2,567	\$1,327	\$2,713	\$3,950	\$800	\$14

FYs 2002 - 2004 data is based on SPS and non-SPS related trade barriers. FY 2005 and 2006 data is based on non-SPS trade barriers.

## OBJECTIVE 1.2: SUPPORT INTERNATIONAL ECONOMIC DEVELOPMENT AND TRADE CAPACITY BUILDING

#### **Overview**



The ultimate goal for supporting developing countries is to help them become economically stable and capable of supporting their populations. USDA participates in this effort by providing food assistance and trade and development programs. The Department supports these programs along with other Federal agencies, such as the U.S. Agency for International Development. USDA technical assistance and training play a vital role in helping developing countries meet their WTO obligations, strengthen policy and regulatory frameworks, and avoid

or eliminate unjustified trade barriers. Assistance in trade capacity building also supports market-infrastructure development. This development assistance includes market information, agricultural grades and standards, and the cold-chain technology by which perishables are kept cold until they reach consumers. The assistance also helps increase capacity to purchase U.S. exports. In combination with food assistance that covers gaps in supplies and keeps the population healthy, USDA deploys its unique resources and expertise in agricultural development activities. These activities help advance market-based policies and institutions, develop sustainable agricultural systems, and strengthen research and education in developing countries. Assistance focuses on improving agricultural productivity and markets as the engines for economic growth. The Department also helps developing countries increase trade and integrate the agricultural sector into the global economy through regulatory reform. Other priorities include reducing hunger and malnutrition with sustainable, productivityenhancing technologies and supporting agricultural reconstruction in post-conflict or disaster areas.

Primary targets for USDA food assistance in developing countries are school children and their mothers. The McGovern-Dole International Food for Education and Child Nutrition Program provides for the donation of



U.S. agricultural commodities and associated financial and technical assistance for pre-school and school-based feeding programs in developing countries. McGovern-Dole also authorizes the support of maternal, infant and child nutrition programs. Its purpose is to support a healthy young population necessary for a stable society and a capable workforce. A healthy and literate workforce attracts jobs, supports a sustainable economy and helps establish a secure food supply through domestic production and imports.

Americans want a world in which all countries are stable. The 2002 National Security Strategy of the United States recognizes that the root of a foreign threat is the lack of economic development, which often results in political instability. The National Security Strategy is prepared periodically by the President for Congress and outlines the major national security concerns of the U.S., and how the administration plans to deal with them. For most developing countries, a productive and sustainable agricultural sector bolsters economic well-being. Thus, agricultural development is crucial to the National Security Strategy. In developing and transitioning economies, USDA focuses on:

- Eliminating trade and investment barriers to stimulate economic growth;
- Science and technology advancement to raise agricultural productivity in a sustainable environment to boost food availability and improve nutrition;

- Institution building to strengthen sustainable agriculture, market infrastructure and the development of market-information systems;
- Working with international standard-setting bodies to adopt science-based rules and policies; and
- ► Food assistance to support social stability and enhance economic development.

Recent examples of the above include progress toward adopting agricultural biotechnology in the Western Hemisphere and Southeast Asia. USDA efforts resulted in agreement by member countries of the Inter-American Institute for Cooperation on Agriculture, which agreed to develop a program on biotechnology and biosafety. Additionally, USDA, the U.S. Department of State and the 10 members of the Association of South East Asian Nations participated in a roundtable discussion on agricultural biotechnology. The group developed recommendations for continued agricultural biotechnology exchange with the U.S. The recommendations will be forwarded to the association's subcommittee on biotechnology.

## Selected Results in Research, Extension and Statistics

USDA provided technical assistance and training to improve agricultural statistics programs in 10 countries. Short-term assignments supported work in Armenia, Brazil, China, Costa Rica, El Salvador, Georgia, Mexico, Mongolia, Russia and Ukraine. The Department also coordinated and/or conducted briefings and/or training programs in the U.S. for 158 visitors representing 17 countries. These assistance and training activities promote better data quality and improved access to data from other countries. Thus, U.S. analysts can understand the world supply and demand situation better. Improved analysis supports trade and more efficient marketing of U.S. agricultural products.

#### **Challenges for the Future**

Hunger and malnutrition still impact much of the world. USDA works closely with the United Nations' World

Food Program and private voluntary relief and development organizations. The program offers food assistance to natural-disaster victims, the displaced and the world's hungry and poor.

#### **Key Outcome**

Improved Ability in Developing Countries to Sustain Economic Growth and Benefit from International Trade

Trade-capacity building (TCB), or trade-related technical assistance, helps strengthen developing countries' agricultural institutions and regulatory systems, encourages compliance with international norms, and fosters the adoption of U.S. approaches to agricultural policy and regulatory procedures. TCB also supports the President's national security strategy by assisting nations in developing economic stability through free trade and open markets.

USDA's top trade policy priority — a successful conclusion to the Doha Round — recognizes the importance of trade to developing countries. Tradecapacity building gives developing countries an incentive to participate in the Doha process. By helping countries joining WTO understand and meet their new commitments, TCB builds markets for the future by fostering economic growth.

The United States is concluding a growing number of free trade agreements with developing countries. In addition to promoting market access, such agreements encourage economic growth and closer political ties with countries important to U.S. national security. Because of these linkages, technical assistance is an integral part of the negotiating package.

TCB is critical in addressing the many technical barriers that impede access for U.S. agricultural products in global markets. By helping countries develop transparent, science-based regulations and increasing understanding of the U.S. regulatory system, TCB can expand access for U.S. agricultural products. Likewise, this assistance enables recipient countries to access other world markets.

The U.S. is the world's leader in food aid, providing more than half of total worldwide assistance to combat malnutrition. U.S. food-aid programs are a joint effort across several Federal departments. USDA works with USAID, private voluntary relief and development organizations, American universities, Federal agencies and the United Nations' World Food Program to provide targeted food aid and assistance where it is needed most. Economic development activities aimed at market-capacity building for both domestic and international trade are supported through the provision of food assistance.

These activities combined with USDA technical assistance and training foster stable societies, economic growth and market-infrastructure development. Consequently, recipient countries are able to boost domestic production and, in turn, reduce their dependence on food aid. The activities aid recipient countries in building sound economic policies that support sustainable development and participation in global agricultural trade.

#### **Analysis of Results**

The performance goal was exceeded. McGovern-Dole promotes school enrollment and attendance, contributing to an educated workforce and economic growth and development. The program's primary goal of increasing school attendance can be measured with confidence. In FY 2005, McGovern-Dole used \$91 million to provide 118,000 tons of food to 3.4 million children in 15 developing countries in Africa, Asia, Latin America and Eastern Europe. These efforts resulted in more children entering schools, improved student performance, and greater parental and community involvement in education. In FY 2006, McGovern-Dole used \$99 million, which supported the feeding of 3.3 million women, infants and children. The target of 2.4 million was based on the effects of estimated increases in commodity and fuel prices. Price fluctuations, combined with changes in distribution, resulted in the goal being exceeded.

Exhibit 19: Support Foreign Food Assistance

		Fiscal Year 2006		5
	Annual Performance Goals and Indicators	Target	Actual	Result
1.2.1	Number of mothers, infants and schoolchildren receiving daily meals and take-home rations through McGovern-Dole International Food for Education and Child Nutrition Program (Mil)	2.4	3.3	Exceeded

Exhibit 20: Trends in Supporting Foreign Food Assistance

	Fiscal Year 2006				
Trends	2002	2003	2004	2005	2006
Number of mothers, infants and schoolchildren receiving daily meals and take-home rations through McGovern-Dole International Food for Education and Child Nutrition Program (Mil)	N/A	2.5	2.0	3.4	3.3

Exhibit 21: Support Improvement in Foreign Countries' Trade Policies

		Fiscal Year 2006		
	Annual Performance Goals and Indicators	Target	Actual	Result
1.2.2	Number of recipient countries that make substantive improvements in national trade policy and regulatory frameworks that increase market access	6	6	Met

Note: This is a new measure; thus, trend information is unavailable.

The performance goal was met in six countries. USDA technical assistance to the Ministry of Agriculture in Montenegro resulted in establishment of a Montenegrin market information Web site. The site provides farmers access to better information and improved capacity for agribusiness and economic development. In Serbia, USDA biotechnology capacity-building activities led to a new draft law on agricultural biotechnology. The law expands on the existing one and simplifies import of biotechnology products. In Romania, with the official launch of the Good Manufacturing Practices manual, Romalimenta (the Romanian Food Industry Federation) and USDA are helping the food industry increase its capacity to produce and regulate safe food.

Additionally, a USDA technical review of food shelf-life standards in Egypt resulted in a commitment by the Egyptian government to amend regulations and notify WTO for comment prior to final enforcement. Mexico, after nearly losing meat export equivalence status in late

2003, made significant improvements in its meatinspection system; USDA sponsors Mexican meat inspectors at Department training courses in the U.S.

Following a USDA diagnosis of *avian influenza* (*AI*) in 2006, Afghanistan launched an immediate control effort. Since then, no new *AI* cases have been reported. This was due in part to an ongoing USDA program to develop an effective monitoring system in the country via workshops and training programs conducted by Department epidemiologists. Such a monitoring system helps alleviate fears that could stifle trade in poultry products.

All private voluntary organizations that offer food aid through McGovern-Dole conduct extensive operational and results surveys; USDA evaluates the results to determine the programs' effectiveness. Additionally, semi-annual reports share results and challenges. Through the use of the surveys and reports, USDA identifies strategies that address challenges and barriers.

## OBJECTIVE 1.3: IMPROVED SANITARY AND PHYTOSANITARY (SPS) SYSTEM TO FACILITATE AGRICULTURAL TRADE

#### Overview



Sanitary and Phytosanitary (SPS) refers to measures imposed by governments to protect human, animal and plant health from pests, diseases and contaminants. These measures often hinder trade, intentionally or unintentionally, reasonably or unreasonably. USDA agencies work with other Federal agencies to address and mitigate SPS measures imposed by foreign governments.

#### **Key Outcome**

An Improved Global SPS System for Facilitating Agricultural Trade

The negative impact of some SPS measures is growing due to increasing trade in food and agricultural products. This is apparent in the growth of trade in consumer-ready products such as meats, fruits, vegetables and processed foods. The problem is compounded by the emergence of threats like *bovine spongiform encephalopathy* (BSE is a chronic degenerative disease affecting the central nervous system of cattle), poor regulatory infrastructure in many developing countries, and political pressures that cause foreign governments to implement stricter-than-needed SPS measures.

In response, USDA will work closely with other Federal agencies to strengthen regulatory coordination, address SPS measures and other technical barriers to trade, and encourage trading partners to use sound science in regulatory decision making. The Department will lead Federal efforts to monitor adherence to the SPS Agreement of the WTO and will help lead enforcement of the agreement. USDA will also continue to work through international organizations to develop stronger science-based standards to facilitate trade. Additionally, the Department will conduct regulatory capacity-building activities with selected trading partners. These activities will help protect the life and health of humans, animals and plants around the world; they will also facilitate trade through efficient regulation.

USDA has several tools to help monitor international regulatory activities. For example, WTO members submit more than 800 annual notifications of intent to alter or create import requirements related to food safety or plant and animal health. USDA maintains the official U.S. Government Enquiry Point and Notification Authority to track and respond to these notifications. The Department reacts aggressively to restrictive measures. USDA maintains a monitoring system that allows it to address problems quickly.

While some of the issues are difficult to resolve, USDA can pursue long-term solutions. *BSE* is a good example. In FY 2006, USDA reopened or expanded restricted beef markets in Japan, Mexico, CAFTA countries, Peru, Malaysia, Taiwan and Singapore. This came two years after the first domestic *BSE* case and subsequent market closures. To do this, USDA worked to develop the scientific information to support its case to revise international standards. The Department also strives to hold countries accountable for complying with their trade agreements. This will continue to be a top priority for USDA as it seeks to reopen markets for U.S. beef.

### Selected Results in Research, Extension and Statistics



New Strategies Keep Fresh-cut Produce Free of Pathogens—New intervention strategies for fresh-cut produce dramatically reduce the risk of pathogen contamination, thereby promoting domestic sales and trade. USDA scientists identified a safe and effective new sanitizer that achieved a 99.999 percent reduction of *E. coli 0157:H7*, *Listeria*, and *Salmonella* on produce. The researchers optimized sanitation treatment procedures to ensure good quality of shredded carrot and fresh-cut lettuce while maintaining the sanitizer's effectiveness. These findings are especially useful to the fresh produce industry. They provide practical information in selecting a suitable sanitizer to maintain microbial safety and quality of fruits and vegetables.

#### New Treatment Promotes Export of Lettuce—A

new ultra-low oxygen treatment that disinfests insects on lettuce will expand the commodity's export opportunities. Ultra-low oxygen treatments were developed for control of western flower thrips and lettuce aphid on iceberg lettuce with minimal or no negative effects on the vegetable's quality. This research, conducted by a USDA scientist, addresses phytosanitary barriers facing U.S. lettuce in overseas markets. The ultra-low oxygen treatment potentially can become a safe, effective alternative to traditional methyl bromide fumigation for control of western flower thrips and lettuce aphid on

exported lettuce. It also should increase export of U.S. lettuce to overseas markets.

#### Reducing a Phytosanitary Trade Barrier for

Apples—The purported presence of the southern strain of Plum Curculio (PC) in fruit-producing counties (with a second generation in the fruit at harvest) has caused the imposition of trade barriers to Virginia apples. PC is a pest of temperate fruits. USDA-funded research at Virginia Polytechnic Institute and State University is supporting cellular sequencing to determine the distribution of the northern and southern strains of PC in Virginia. The studies have found a bacterial symbiont in both strains that may cause the reproductive isolation between the two. This discovery could enable the elimination of an important phytosanitary issue that has caused a trade barrier in several European countries and several western states. Thus, the market for Virginia apples increases considerably.

#### **Challenges for the Future**

Given the increasing global flow of food and agricultural products, the ability of foreign countries to develop and implement sound science-based regulatory systems is vital to the long-term safety of U.S. agriculture and our food supply. U.S. agriculture benefits greatly from the development of regulatory frameworks in other countries. These frameworks can address technical trade barriers and SPS measures in a transparent and scientifically based manner. Besides monitoring and enforcing its rights under the WTO SPS agreement, USDA is working to support the development and adoption of science-based international standards and SPS regulatory systems. These efforts are critical to the Department's ability to bring developing countries into the global trading system so that they support further liberalization through multilateral trade negotiations.

USDA works closely with the U.S. Trade Representative and other Government agencies to pursue and enforce trade agreements. These agreements include technical regulations and measures designed to enhance food safety and protect plant and animal health. USDA staff in more

than 90 countries helps open, retain and expand international markets for U.S. food and agricultural products. This staff includes veterinarians, economists, marketing experts, plant pathologists, and others. While this group represents USDA overseas as its key supplier of market intelligence, it also helps solve minor trade threats before they become substantial disruptions. Staff members do this by being able to speak knowledgeably with foreign decision makers. They also help support U.S.-based technical experts who develop science-based protocols and health certification procedures for exporting food and agricultural products.

#### **Analysis of Results**

USDA met its performance goal. This was accomplished by trade opportunities preserved through monitoring and compliance enforcement, overseas advocacy and negotiations of technical protocols. The two most important successes were the European Union's indefinite postponement of new requirements on wood-packaging material that exceeds the agreed-upon international standard and the reopening of the Japan market for U.S. beef.

Trade issues and their impact on U.S. exports depends primarily on foreign action, sometimes in response to such events in the U.S. as a livestock disease outbreak. Both the problems and the solutions are unpredictable. Solutions can range from a quick agreement with officials at the port of entry to a long negotiation process followed by a lengthy regulatory or legislative process in the country in question. The impact of an action can range from a few thousand dollars to billions of dollars. While USDA can establish priorities in advance for known constraints, additional events will occur that will require realigning priorities.

USDA's selection of this performance measure demonstrates the growing importance of addressing SPS barriers to maintain or expand trade. As the U.S. Government continues to negotiate new bilateral, regional and multilateral trade agreements, the challenge will be to monitor and enforce compliance with both trade and technical commitments. This monitoring will ensure that U.S. agriculture receives full benefits from negotiated reductions in non-tariff barriers.

Exhibit 22: Increase U.S. Export Opportunities

Fiscal Year 2006			6	
Annual Performance Goals and Indicators		Target	Actual	Result
1.3.1	Increase the dollar value of trade expanded through negotiation or preserved through USDA staff intervention and trade agreement monitoring activities (Sanitary and Phytosanitary) (\$ Bil)	\$2.2	\$2.6	Exceeded

Exhibit 23: Trends in Expanding and Retaining Market Access

	Fiscal Year 2006 <sup>1</sup>				
Trends	2002	2003	2004	2005	2006
1.3.1 Increase the dollar value of trade expanded through negotiation or preserved through USDA staff intervention and trade agreement monitoring activities (Sanitary and Phytosanitary) (\$ Mil) Baseline: 1999 = \$2,567	\$1.327	\$2,713	\$3,950	\$2,000	\$2,600

<sup>1</sup> FYs 2002 - 2004 data is based on SPS and non-SPS related trade barriers. FY 2005 and 2006 data is based on SPS trade barriers.

The figures reflect the uncertainty of trade disruptions. Just weeks after Japan resumed imports of beef in December 2005, it re-imposed the ban after finding beef that violated the recently agreed-upon technical protocol. After U.S. negotiations and inspection of processing facilities, the Japanese market reopened in June 2006.

## Strategic Goal 2: Enhance the Competitiveness and Sustainability of Rural and Farm Economies



Rural America is home to 60 million people, but only 2 million are directly engaged in production agriculture. Most rural income comes from forestry, mining, recreation, manufacturing, support services, and renewable energy. Thus, rural America is of critical importance to the Nation's prosperity and technological advancement. It is in the Nation's best interest to support rural America, and USDA enhances the competitiveness and sustainability of rural and farm economies by, among other things, expanding domestic market opportunities, increasing the efficiency of domestic agricultural production and marketing systems, and providing risk management and financial tools to farmers and ranchers.

## OBJECTIVE 2.1: EXPAND DOMESTIC MARKET OPPORTUNITIES

#### **Key Outcome**

• Increased use of biobased products throughout the agricultural sector

#### **Overview**

Section 9002 of the Farm Security and Rural Investment Act of 2002 (FSRIA) authorized the Federal Biobased Products Preferred Procurement Program (FB4P). The funding level for FY 2006 is \$1.0 million in mandated Commodity Credit Corporation funds and \$1.5 million in appropriated funding. The Office of Energy Policy and New Uses (OEPNU) is implementing it through successive rulemakings. (OEPNU) assists the Secretary of Agriculture in developing and coordinating Departmental energy policy, programs and strategies. FB4P authorizes the preferred procurement of biobased products that fall under items (generic groupings of products) designated by rulemaking. Creating a demand for biobased products supports the farm and rural sectors by expanding and stabilizing the demand for agricultural commodities. To designate by rulemaking, USDA must provide information on environmental and health effects of the product and life-cycle costs. The Department also can set a minimum biobased content for the item. USDA must identify products and manufacturers. It also must gain their voluntary support in providing test information on those products to enable the Department to begin item designation. A voluntary labeling program also is available. Manufacturers of qualifying products can use it to carry the USDA Certified Biobased Product label and logo.

Congress created the FB4P to:

- Spur demand growth for new biobased products;
- Increase domestic demand for agricultural commodities;
- Encourage development of processing and manufacturing in rural communities;
- Capture environmental benefits; and
- Enhance the Nation's energy security.

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The final rule establishing the guidelines under which the program operates was published January 11, 2005. The first of a series of rules to designate items (generic groupings of biobased products) for preferred

procurement was published as a proposed rule in the *Federal Register*, July 5, 2005. The final rule was published, March 16, 2006. Six items (mobile equipment hydraulic fluids, biobased roof coatings, water-tank coatings, diesel fuel additives, penetrating lubricants; and bedding, bed linens and towels) were designated in this rule. Manufacturers of products falling under those items have posted product and contact information on an FB4P electronic catalog for qualifying products under designated items.

The two proposed rules were published in the Aug. 17, 2006, *Federal Register*. The rules designated 20 items as generic groupings of biobased products. The new items included: Adhesive and mastic removers; Insulating foam for wall construction; Hand cleaners and sanitizers; Composite panels; Fluid-filled transformers; Biodegradable containers; Fertilizers; Metalworking fluids; Sorbents; Graffiti and grease removers; Two-cycle engine oils; Lip care products; Biodegradable films; Stationary equipment hydraulic fluids; Biodegradable cutlery; Glass cleaners; Greases; Dust suppressants; Carpets; and Carpet and upholstery cleaners.

Technical information to support each proposed rule is available at the Federal Biobased Products Preferred Procurement Program Web site at <a href="https://www.biobased.oce.usda.gov">www.biobased.oce.usda.gov</a>.

The two proposed rules announced are part of a series of rules that will be issued designating biobased items. USDA has identified about 170 items for which it is collecting test data needed for the additional designations of items. These designations will extend preferred procurement status to include all qualifying biobased products.

Previously, USDA had issued final guidelines for the biobased procurement program. It also developed a model procurement program of training and education to help Federal procurement officials and users of biobased products identify and purchase qualifying biobased products. Information on the guidelines and the model program are available at <a href="http://www.usda.gov/biobased">http://www.usda.gov/biobased</a>.



The benefits of this program are broad. Some accrue directly to the private sector through the program's operation. Others may accrue indirectly via the public sector. FB4P defines qualified biobased products as:

- Those consistent with definition in statute;
- ▶ Products for which the biobased content is known:
- Information is on the environmental and health effects of product use are available;
- Product performance, as tested against industry recognized standards, is known; and
- Designation is based on providing reliable and relevant information to Federal agency.

For Federal agencies, FB4P encourages the purchase of more environmentally sustainable products. It also helps agencies identify those products, increases the availability and diversity of biobased products, and helps agencies reduce environmental footprint.

For manufacturers and vendors, FB4P creates a preferred market for biobased products, provides large-scale demonstration of biobased products performance in use, spurs development of new biobased products and develops alternatives to fossil-energy-based products.

Collectively, the benefits from FB4P creates an information database that both the private and public sectors can use to evaluate designated items to make an informed purchasing/procurement decision. This information also helps reduce the dependence of

petroleum-based products and improve the environment. FB4P increases the demand for processing facilities in rural areas. It also boosts the demand for biomass material from agricultural, marine and forest sources. Currently, USDA is working to implement the program fully. Once implemented, the aforementioned benefits will be realized

#### **Challenges for the Future**

USDA is looking for ways to develop an infrastructure to support the efficient and economically viable development of biobased products. Other challenges include:

- Informing rural America about the benefits of biodiesel fuel use and helping farmers transition to a new style of operating;
- The continued need for public policies supporting the development and use of biobased products;
- The need for public education about the environmental, performance and energy-security benefits of using biobased products, and managing the carbon cycle more effectively;
- The development and evaluation of measures that identify and assess the benefits of increased use of biobased products, including benefits internal to the seller and user of the products and external benefits that affect society and the environment;
- The willingness of manufacturers and vendors of biobased products, working with USDA, to provide the material and data necessary to test and evaluate the biobased content, environmental attributes and life-cycle costs required for the Department to designate generic groupings of products for preferred procurement within the program; and
- The willingness of manufacturers and vendors of biobased products designated by rulemaking for preferred procurement within the program to cooperate with USDA in publicizing their availability.

This can be done by vendors voluntarily posting product and contact information on the program Web site at

www.biobased.oce.usda.gov. This will allow Federal agencies to find biobased products for procurement.

In response to these challenges, USDA is creating regulations and operating procedures for the Bioenergy Program and the FB4P. The Department also is developing a model procurement program for Federal agencies to help them meet their responsibilities within the program's parameters. This model will educate and train Federal agencies about procurement and how to use related informational resources. It also will allow manufacturers and vendors to identify and evaluate biobased products available in the marketplace for their use. The USDA Office of Procurement and Property Management will announce the model procurement program once agencies have implemented the model. If successful, this model procurement program will make an important contribution toward creating market-based opportunities to produce and consume increased amounts of biobased products.

### Selected Results in Research, Extension and Statistics

Biobased Lubricants—Improved germplasm will expand production and marketing opportunities for biobased lubricants. Commercialization of *Lesquerella* — whose seeds contain oil rich in hydroxy fatty acids, an important raw material for making resins, waxes, nylons, plastics, lubricating greases, and cosmetics — is impeded by a lack of superior germplasm for crop production. USDA scientists released a new variety of *Lesquerella* with higher oil content than any other variety. The new line provides public and private researchers additional sources of genetic diversity for future breeding and an alternative domestic source of hydroxy fatty acids for lubricants currently made from imported castor oil.

#### **Analysis of Results**

Rules are being issued designating biobased items.

FB4P is expected to significantly increase the use of biobased products within the Federal Government. This increased usage, in turn, will encourage the production of biobased products for that market. The program calls for Federal agencies to give preference to designated

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biobased products in Government purchases within one year of publication of the final designation rule.

Exhibit 24: Increase the Use of Biobased Products

		Fiscal Year 2006		
	Annual Performance Goals and Indicators	Target	Actual	Result
2.1.1	Number of items designated as biobased for Federal procurement.	Publish 6 items in Final Rule	Published 6 items in Final Rule	Met

Note: This measure changes annually; thus, trend information is not available.

## OBJECTIVE 2.2: INCREASE THE EFFICIENCY OF DOMESTIC AGRICULTURAL PRODUCTION AND MARKETING SYSTEMS

#### **Key Outcome**

Agricultural Producers Who Compete Effectively in the Economic Market

#### **Overview**

USDA improved market competitiveness and increased the efficiency of agricultural marketing systems. The Department provided greatly enhanced access to marketing information for producers and marketers of farm products, and those in related industries, by initiating the *Market News* portal. The portal provides electronic access and custom report capability on current market data for fruits and vegetables, livestock and grain. Additional commodities will be added to the portal as resources allow. Market News is the only nationwide mechanism for gathering and publishing price data on specific agricultural commodities. This timely, accurate and unbiased market information covers local, regional, national and international markets. The information is designed to help traders of U.S. agricultural products decide where and when to sell, and at what price. USDA also distributes Market News, which reports current data on supply, movement, contractual agreements, inventories and prices for many agricultural commodities. It does this by collecting, analyzing and disseminating market information for numerous agricultural commodities. Electronic access and e-mail subscriptions for all commodities are available at http://marketnews.usda.gov/. Federal and cooperating State reporters obtain market

information, which USDA analyzes, compiles and disseminates immediately to all interested parties.

Market News provides agricultural producers access to the necessary information for determining contract values, dispute resolution and reporting under trade agreements. Market News reports are used in judicial proceedings and when the International Trade Commission is considering dumping allegations with respect to agricultural commodities and products entering the country. U.S. Customs and Border Protection use USDA price data to assess the value of imports. Agricultural commodity and product contracts are routinely linked to prices reported by Market News. The Market News portal provides a Web-based search engine that allows users to find market information and tailor reports by commodity, variety, shipping point and destination market.

USDA worked closely with the rapidly expanding organic agriculture industry to refine the definitions and requirements for organic production and labeling. USDA's National Organic Program conducted an organic dairy symposium and public comment and rulemaking activities relating to access to pasture, the use of synthetics, import equivalency, aquaculture and pet food.

This program originated from the Organic Foods
Production Act of 1990. It is designed to establish
national standards governing the marketing of agricultural
products as organically produced, to assure consumers
that organically produced products meet a consistent
standard, and to facilitate commerce in fresh and
processed food that is produced organically. Before the
program's creation, individual states established their own
organic production and labeling requirements. The
nationwide program provides a more efficient and
competitive system

for the marketing of organic agricultural products within the U.S. and for exports.

Additionally, USDA launched a new Farmers Market Promotion Program, updated the Farmers Market Resource Guide, established a Farmers Market Consortium, created a new Web site on Farmers Market resources and participated in the Farmers Market Coalition. More information on all of these is available at http://www.ams.usda.gov/farmersmarkets/. The program's marketing experts provide technical advice and assistance to States and municipalities interested in creating or upgrading wholesale market facilities, auction and collection markets and retail farmers markets. They also conduct feasibility studies in cooperation with the private sector, not-for-profit organizations and other Government agencies to evaluate and suggest efficient ways to handle and market agricultural commodities. USDA researches marketplace changes to assist States, localities, market managers/operators and growers in making strategic decisions for future business development.

The program facilitates distribution of U.S. agricultural products, identifies marketing opportunities, provides analysis to help take advantage of those opportunities and develops and evaluates solutions. Marketing solutions include improving farmers markets and other direct-to-consumer marketing activities, researching and developing marketing channels, providing information and education, encouraging adoption of improved post-harvest technology, and designing market facilities. The program benefits agricultural producers by providing solutions to marketing problems so that they can remain financially viable. Consumers benefit from increased availability and alternative, cost-efficient sources.

### **Selected Results in Research, Extension and Statistics**

USDA is taking advantage of the latest broadcast technology by becoming one of the first federal agencies to offer podcasts. The same audio stories that are distributed to farm broadcasters and posted on the USDA Web site now are available via podcast. Podcasting is a

method of publishing and syndicating audio broadcasts through the Internet. It allows users to download audio files to be played on computers or portable music players.

USDA conducts the Agricultural Resources Management Survey (ARMS) annually. ARMS data travels through numerous Federal statistical agencies. The Department estimates the largest cash receipts among the States. Meanwhile, the Bureau of Economic Analysis (BEA) produces county estimates using ARMS data in combination with the U.S. Census of Agriculture data. BEA data are used as a basis for distributing billions of Federal dollars back to the States and counties.

USDA continues to work closely with the World Agricultural Outlook Board (WAOB) to provide shortand long-term projections of U.S. and world agricultural production, consumption, and trade. WAOB serves as USDA's focal point for economic intelligence and the commodity outlook for U.S. and world agriculture. For the FY 2007 President's Budget, USDA used stochastic budgeting based on a Department project. USDA incorporated stochastic price and production information into its 10-year budget baseline projections. (Stochastic budgeting helps analysts create a probability distribution of possible funding needs.) The Commodity Credit Corporation outlay projections for countercyclical payments, marketing loan benefits and milk income loss contract payments were based on stochastic information generated by a USDA Food and Agricultural Policy Simulator (FAPSIM) model on feed grains (corn, barley, sorghum, oats, wheat, rice, upland cotton, soybeans and dairy). FAPSIM is an annual econometric simulation model.

The Structure and Finance of U.S. Farms: 2005 Family Farm Report, published in 2006, provides research examining the status of family farms. Most U.S. farms—98 percent in 2003—are family owned. They are organized as proprietorships, partnerships or family corporations. Even the largest farms tend to be family farms. While very large family farms account for a small share of farms, they represent a large—and growing—

share of farm sales. While small family farms account for most farms, they produce a modest share of farm output. Median income for farm households is 10 percent greater than that for all U.S. households. Small-farm households also receive substantial off-farm income.

Farm-level data have been collected for use in assessing the relationship between approaches to management and farm financial success. This work examined the management structure of farms to determine who controls farm assets. Management units that make decisions for farms were described, extending information about how farms control and guide their businesses. Results suggest that the size and nature of the management team along with the complexity of the farm system have important implications for the operation's success.

Ten years after the first generation of genetically modified (GM) varieties became commercially available, USDA reviewed the adoption of domestic GM crops. It examines the three major stakeholders of agricultural biotechnology and finds that (1) the pace of research-and-development activity by GM-seed producers (the seed firms and technology providers) has been rapid, (2) farmers have adopted some GM varieties widely and quickly and benefited from such adoption, and (3) the level of consumer concerns about foods that contain GM ingredients varies by country, with European consumers being most concerned.

One of the most successful management strategies for improving yield in corn is the use of increased plant populations. To realize this yield advantage, growers must find ways to offset decreases in stalk diameter and root mass. North Carolina State University conducted USDA-funded research that indicated that the use of starter fertilizer treatments featuring nitrogen and phosphorus led to significant improvements in stalk diameter and root mass. These improvements resulted in yield increases of 22 bushels per acre. The number of growers using high population corn systems increased dramatically in 2005 (the latest year for which data is available) in North Carolina counties where corn is an important crop. Sixty

percent of the corn growers are using higher populations, resulting in an economic gain of \$1,200,000 in 2005.

With USDA funding, Oregon Extension livestock specialists taught producers to feed their animals more scientifically by using: (1) ration formulation software; (2) a library of Oregon feeds and forages, developed for use with the formulation software; and (3) other resources such as the new "Winter Feeding Workbook." Participating producers report saving an average of \$21 per head by using these technologies.

New heat-tolerant germplasm with excellent fiber quality will provide opportunities to expand U.S. cotton production. USDA partnered with a manufacturing firm to release three improved lines of upland cotton to the public for use in breeding new varieties. For the first time, these lines combine some of the excellent fiber quality of Acala-type cottons with the heat tolerance of Delta-type cottons. They can be used as resources for breeders trying to improve the fiber quality of mid-south and southeast cottons. Those attempting to improve heat tolerance of Acala cottons for the western U.S. also can use these materials.

The ability to produce fresh strawberries for fall and winter will expand production and marketing opportunities. Though there is market demand for fresh strawberries in the fall and winter, most current strawberry production methods produce fruit only in the spring. USDA scientists have developed a new transplant-propagation technique. This technique causes strawberry plants to flower within four weeks after field establishment. It also can be used to grow strawberries that develop in both the fall and the spring. This propagation technique stretches the picking season to late fall when the price is greatest. It also lessens the risk of weather-related crop loss.

#### **Analysis of Results**

USDA published the 2006 Agricultural Statistics Board (ASB) calendar early in FY 2006. The calendar lists release dates and specified times for USDA's national

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agricultural statistics reports. These reports cover more than 120 crops and 45 livestock items. All of the 487 agricultural statistics reports scheduled by ASB were released on-time to achieve the 100-percent performance target in FY 2006. Also, there were no errors published in FY 2006. USDA issues an official errata notice if the errors in the report were determined to be "market sensitive." Reports with cosmetic and non-data errors or "non-market sensitive errors" are also tracked, documented and corrected. Revisions to preliminary data series, forecasts or estimates are part of USDA's standard operating procedures and are not considered errors. ASB prepares and issues official national and State forecasts and estimates relating to crop production, stocks of agricultural commodities, livestock products, dairy products, poultry products, agricultural prices, agricultural wage rates, chemical usage, and other related subjects.

USDA strives to release its ASB reports on time 100 percent of the time each year. It is imperative to deliver high-quality, objective, relevant, timely and accurate statistics to producers and other data users. Such statistics allow users to make sound decisions. Official agricultural statistics promote a level playing field in production agriculture with impartial information available to all at a publicized time. These data, provided throughout the year, are important to the commodity and agricultural markets, and help provide a fair and equitable environment. The data are also used by public officials to make informed decisions. USDA policymakers and Congress use this information to enable a strong, sustainable U.S. farm economy.

Exhibit 25: Agricultural Statistics Reports Released On-Time

		Fiscal Year 2006		
	Annual Performance Goals and Indicators	Target	Actual	Result
2.2.1	Agricultural Statistics Board reports are released on time 100 percent of the time.	Agricultural Statistics Board reports are released on time 100 percent of the time	Agricultural Statistics Board reports were released on time 100 percent of the time	Met

Exhibit 26: Trends in Agricultural Statistics Reports Released On-Time

		Fiscal Year 2006					
	Trends	2002	2003	2004	2005	2006	
2.2.1	Agricultural Statistics Board reports are released on time 100 percent of the time.	99.8%	100.0%	99.2%	99.8%	100.0%	

## OBJECTIVE 2.3: PROVIDE RISK MANAGEMENT AND FINANCIAL TOOLS TO FARMERS AND RANCHERS

USDA helps the Nation's farmers and producers mitigate the risks involved in agricultural production. The Department continually works to improve its programs to better serve the needs of producers better, and reach out to new farmers and underserved populations. An economically prosperous agricultural sector contributes to the Nation's economic vitality and standard of living. Consumers benefit from efficiently produced and marketed agricultural products that minimize their food costs and maximize their choices. The success of U.S. agriculture depends on the ability to expand into new markets, obtain adequate capital, protect against financial risk and adjust to changing conditions. This success also depends on the economic well-being of producers. Producers must be able to increase production, either through increased farm acreage or other methods, maintain their farms and equipment, and utilize tools to mitigate the risks associated with various aspects of production.

#### **Key Outcome**

Economically Sound Agricultural Production Sector

There is much diversity in the farm sector due to differences in resources, climate, individual preferences and even lifestyles. The needs, concerns and opportunities of larger, commercially oriented farms differ from those of smaller, intermediate farms, regardless of location. Thus, USDA has a variety of farm-related programs designed to enhance the economic opportunities for all agricultural producers, while providing options for individual producers. The Department helps meet the credit needs of farmers and ranchers through its farm loan programs. It also provides income stability to keep producers economically viable through such economic safety-net programs as crop insurance, direct and counter-

cyclical payments, marketing-assistance loans and other commodity support programs.

Providing access to capital is one of USDA's primary objectives. USDA makes direct and guaranteed farm ownership and operating loans to farmers and ranchers temporarily unable to obtain commercial credit from a bank, Farm Credit System institution or other lender at reasonable rates and terms. These loans can be used to purchase land, livestock, equipment, feed, seed and supplies, construct buildings or make farm improvements. USDA loans are particularly important to beginning, minority and women farmers, groups that have been underserved by the commercial lending industry. Additionally, their limited cash flow may prevent them from qualifying for a commercial loan. USDA also helps established farmers who have suffered financial setbacks from natural disasters or whose resources are too limited to maintain profitable farming operations.

The Department provides outreach and technical assistance to beginning, minority and women farmers and ranchers to help them establish and maintain profitable farming operations. USDA works with other Federal, State and local agencies, non-governmental organizations, land-grant universities and other educational organizations. These groups identify and assist minority farmers and women producers, and help remove program barriers to participation. Additionally, USDA works to ensure adequate funding for direct operating loans for minority, small, beginning, limited resource and other farmers.

USDA is positioning itself for the future to serve the needs of America's farmers and ranchers, food-aid recipients, and the general public best. Although agriculture and rural America have changed substantially, the Department's field-office structure dates to the 1930s. USDA must change the way it conducts business to place limited resources where they will be needed most. To accomplish this, it is streamlining and modernizing its business processes, and working to improve program delivery and increase operational efficiency. USDA is

working to make more programs and services available electronically. This step is designed to offer customers more access to programs and information.

USDA also is redesigning the way it interfaces with farmers and producers in its traditional "safety-net" programs. The Department is expanding online options while maintaining more traditional approaches. Offering programs in a Web environment will reduce the number of hours needed to verify and disburse program benefits greatly. Additionally, a Web environment also is more cost effective and increases customer satisfaction.

USDA continues to streamline procedural handbooks, information collections and regulations for the direct-loan program. This process allows the Department to focus on providing technical assistance, services, monitoring and oversight. These are essential tasks in supporting high-risk beginning and socially disadvantaged minority or women borrowers. A similar effort completed for the guaranteed loan program streamlined all business processes. This effort dramatically reduced the reporting burden for applicants and USDA. It also led to more efficient loan processing. Comparable results are anticipated for the direct loan program once the streamlining effort is complete.

The Department has responded with a number of initiatives designed to improve services for customers and save time and money for its programs. Some of USDA's Web-based tools improve internal processes and permit information sharing among agencies. Other improvements allow customers to complete electronic transactions themselves, improving customer satisfaction. Currently, USDA is developing the Farm Loan Program Information Delivery System (FLPIDS). This Web-based system will house all farm-loan programs and provide multiple improvements to operational efficiency. For example, producer data will only have to be entered once. Then, they will be available for any application needed for that producer. Additionally, FLPIDS will contain such enhanced decision-making tools as a workflow system that will provide improved workload data for managers.

In FY 2001, USDA implemented the Service Center Information Management System. The system transfers producers' names and addresses from a local database to a national Web-based system accessible to all service center employees. This application is the foundation on which USDA's enterprise initiatives are built. Data are available centrally to automate business rules fully for payment limitations, eligibility and other functions that require nationwide data access. The Department is using cuttingedge technology for a number of initiatives. These initiatives are designed to decrease the amount of administrative processing time significantly for many programs, enhance program delivery and allow customers to complete and submit information and forms electronically. Producers no longer have to travel to their local USDA Service Center to complete these tasks, but can view and print submitted contract options at any time. While producers still have the option to apply for the program in person at their local USDA Service Center, offering sign-up options through the Internet will help the Department serve more producers.

Financial risk partially derives from the time lag between when producers need assistance or capital and when they actually receive the funds or credit. USDA is working to reduce the amount of time required to process its direct and guaranteed loan programs to get funds to producers in a timelier manner. Reducing loan-processing time ensures that financial resources are funneled more quickly where needed. This effort allows recovery from setbacks and improves operational efficiency. The Department also plans to increase the percentage of transactions completed electronically. Electronic transactions greatly reduce the number of hours needed to verify and disburse program benefits. Several USDA programs already are Webenabled. This feature allows producers to file applications and paperwork electronically, eliminating trips to USDA offices and expediting the administrative process. Getting funds to producers more quickly and efficiently will improve customer service and satisfaction. Thus, the Department will be able to meet the needs of operators,

farmers and the consumers who depend upon the results of the Nation's agricultural sector better.

The USDA Federal crop insurance program provides an actuarially sound risk management program to reduce agricultural producers' economic losses due to unavoidable causes. Recently, USDA has seen dramatic growth in this program. In FY 1998, the program insured 181.8 million acres. Since that time, insured acreage has grown steadily, and is currently at 245.8 million acres. Since FY 2000, insured acreage in the program has increased 39.4 million acres or 19.1 percent. Federal crop insurance is available to producers solely through private insurance companies that market and provide full service on policies upon which they share the risk with USDA. Principally, the Standard Reinsurance Agreement (SRA) defines the amount of risk they share. The SRA calls for insurance providers to deliver risk management insurance products to eligible entities under certain terms and conditions. Providers oversee all aspects of customer service and guarantee payment of producer premiums to the Federal Crop Insurance Corporation (FCIC). In return, FCIC reinsures the policies and provides premium subsidy to producers. It also provides reimbursement for administrative and operating expenses associated with the companies delivering the insurance products. FCIC is a wholly owned Government corporation created in 1936 to provide for the nationwide expansion of a comprehensive crop insurance program.

In 2005, USDA renegotiated the SRA. These changes are estimated to generate average annual Government savings of \$37 million. They also promote policy sales in less-profitable areas and reduce program fraud, waste and abuse. The number of participating companies is up to 16. Most of these companies have requested authorization to increase the amount of premium they underwrite and the number of States they intend to serve. USDA continues to receive inquiries from additional insurance companies interested in joining the program. The value of risk protection provided to agricultural producers through FCIC-sponsored insurance exceeded \$49.9 billion in FY

2006. As recently as FY 1998, the value of risk protection provided agricultural producers was less than \$28 billion.

USDA launched two new Pasture, Rangeland and Forage pilot insurance programs at the Texas A&M Beef Cattle Short Course Annual Cattlemen's College.

Approximately 1,500 livestock producers attended the exhibition. USDA co-hosted a workshop for ranchers to explain the new pilot programs. Producers also could visit the USDA booth for personal demonstrations of the new products. The exhibition attracted substantial media attendance and coverage. Reporters interviewed ranchers and Department personnel regarding the new products. Various cattle organizations attended the exhibition and obtained information to distribute to their membership.

USDA also announced new agricultural risk management partnership agreements totaling \$25.05 million. The agreements provide funds for projects to develop new risk management tools for farmers and ranchers. They also provide outreach and education opportunities to limitedresource and other traditionally underserved farmers and ranchers. About \$6.97 million was allocated to 64 partnerships with community-based, educational and notfor-profit organizations. The funds are used to educate women, limited-resource and other traditionally underserved farmers and ranchers to manage and mitigate agricultural risks. About \$4.40 million was used to fund cooperative agreements to deliver crop insurance education to producers in 15 historically underserved States. Specialty crop, livestock, nursery and horticulture producers will benefit from \$5.24 million in education partnership agreements for 40 commodity partnership programs.

When natural disasters strike, the Department reacts quickly to help affected producers recover. USDA partners with commercial lenders to guarantee ownership and operating loans. It also makes direct loans to producers and provides capital in times of emergency. Additionally, the Department provides income stability. This assistance includes direct and counter-cyclical payments, marketing-assistance loans and other

commodity support programs. USDA supports research to identify new uses and more efficient technology for producing and marketing agricultural products.

#### **Challenges for the Future**

Local and national economies impact USDA's ability to meet the credit needs of producers and the delivery of services. Training, human-capital planning and organizational efficiency are priorities as the Department works to provide greater awareness of its programs and inform its customers of participation requirements. USDA farm loan programs are reviewed regularly. These reviews ensure that customers are receiving services efficiently and effectively, and that service staff are trained to assist farmers during economic crises and natural disasters.

While a USDA strategic goal is to convert more of its programs to Web-based transactions, many producers are neither ready nor able to use new technologies. In many areas of the U.S. high-speed Internet access is unavailable. The Department recognizes the need to provide education and support to customers converting to electronic transactions. At the same time, USDA must continue to provide traditional, face-to-face program delivery for its customers. Thus, for the foreseeable future, service center staff must face the challenge of operating in a dual environment of old and new processes and procedures.

USDA will continue to increase the availability of eGovernment initiatives to allow producers to have around-the-clock access to farm programs. While USDA offers many programs that can be accessed through the Internet, its ability to offer services electronically depends upon continual updating and improvement of its technological and physical infrastructure. Without constant maintenance and upgrading, USDA's ability to offer more services online will be constrained. Improving equipment and technology and training staff in its use will be essential for the Department to achieve its goal of more Web-based transactions for customers.

USDA is evaluating contracts for the development of new and innovative risk management solutions for insuring pasture, rangeland, forage and hay. The contracts include developing a new plan that uses such tools as a satellitebased vegetative index, and another based on a Temperature Constrained Normalized Difference Vegetation Index (NDVI) approach. NDVI uses data derived from satellite-based remote sensing imagery. This system describes the seasonal growth dynamics of vegetation for target areas. One such tool is a Seasonal Growth Constrained Rainfall Index. This index uses a weighted warm season/cool season indexing period and the National Oceanic and Atmospheric Administration rainfall data system. Another one is the Precipitation Index, which bases itself on a weighted average amount of precipitation during a particular time period. FCIC will determine which of these approaches meets the criteria for effective risk management coverage and will then approve, modify or reject each approach for pilot testing in specific areas.

#### **Analysis of Results**

In FY 2006, USDA met or exceeded each of its performance targets for providing risk management and financial tools to farmers and ranchers.

USDA introduced two new pasture, rangeland and forage products that will be available for FY 2007. The Rainfall Index Insurance and the Vegetation Index Insurance Programs will allow livestock producers to purchase insurance protection for losses of forage produced for grazing or harvested for hay. USDA will test the former program in 220 counties in Colorado, Idaho, North Dakota, Pennsylvania, South Carolina and Texas. This program is based on rainfall indices used to measure expected production losses. The Department will test the latter program in 110 counties in Colorado, Oklahoma, Oregon, Pennsylvania, South Carolina and South Dakota. This program is based on satellite imagery that determines the productivity of the acreage as a means to measure expected production losses. Together, these pilot programs will be available to provide coverage on

approximately 160 million of the 640 million acres of grazing land and hay land in the U.S.

USDA also reviewed program participation in States previously determined to be underserved by the Federal Crop Insurance Program. This review confirmed the significant progress made in increasing participation in many of the underserved States. In FY 1998 for example, crop insurance covered only 30 percent of the planted acreage of major crops in the underserved States. By FY 2005, the last year for which figures are available, participation had increased to 54 percent. Likewise, participation at buy-up levels of coverage increased from 41 percent to 77 percent during this period. This review further confirmed that every crop of economic significance already has widespread insurance availability, except for pasture, rangeland and forage. The review also confirmed that, with a few exceptions, programs already exist for the major crops in the States ostensibly underserved by program. It is apparent that addressing participation concerns in underserved States largely requires a focus on USDA's existing product portfolio. This is particularly true for extensive education and marketing, and improvements to existing products. The Department is looking to secure outside expertise to help identify improvements needed in existing products for underserved States. It also is continuing work on other efforts that may offer a cost-effective approach to delivering risk management products to various smallvalue and specialty crops.

USDA set a target to have 33 percent of its programs Web-enabled in FY 2006. It met this target. For programs to be considered as such, producers and ranchers must have access to the relevant program software from their home or office. USDA met this goal with three programs (Loan Deficiency Payment, Direct and Countercyclical Payment Program, and Tobacco Successor-In-Interest Contracts). Another program, the Milk Income Loss Payments Program, while Web-enabled at all USDA county offices, remains unavailable to individual producers.

USDA is attempting to reduce administrative costs and increase customer satisfaction as it moves from an antiquated "legacy" platform to a Web-based system for administering programs and disbursing payments. Customers have the option of applying for Loan Deficiency Payments (LDPs) online or going to a service center. Currently, USDA makes payment on approved electronic LDP applications within 48 hours. The previous manual process could take up to eight weeks for payment. Less than 1 percent of LDPs currently are delivered through a Web-based environment. USDA will increase the percentage to 100 percent by FY 2007. By using the Web-based system, USDA will realize substantial administrative savings. Additionally, when fully implemented, customers will no longer be required to visit USDA Service Centers to complete transactions. This should increase customer satisfaction and reduce the average processing time for delivering program benefits.

USDA exceeded the annual goal for the percentage of beginning farmers, women, and racial and ethnic minorities financed by the Department. In FY 2006, 46 percent of farm operating and ownership loan dollars went to these groups, surpassing the 40-percent target and matching the record result achieved in FY 2005. The FY 2006 results continue the long-term trend of providing increased assistance to these farmers and ranchers.

The Department exceeded the processing time performance goals for both Direct and Guaranteed Loan programs. In the Direct Loan Program, the average processing time in FY 2006 was 31 days, exceeding the 35-day target. The average processing time for Guaranteed Loans decreased from the FY 2005 level of 14.5 days to 12.63 days in FY 2006. Processing times for both loan programs have decreased significantly in the past several years, with direct loans decreasing by 10 days since 2002. Guaranteed loan processing decreased by more than five days per loan since 2001. By emphasizing the need to reduce processing time within each field office, USDA now processes and administers loans to customers more efficiently. Thus, farmers can receive the

financing they need in less time, and help sustain their livelihood or income levels.

## Selected Results in Research, Extension and Statistics

USDA recently studied the role of farm subsidy programs on rural economic well-being. Farm subsidy programs were introduced in the 1930s largely due to concern for chronically low and highly variable incomes of U.S. farm households. Today, commodity-based support programs remain prominent, though the income and wealth of the average farm household now exceeds that of their non-farm counterparts by a large margin. Farm income continues to be highly variable. Despite this, the small set of farm households most at risk for income variability — because farm income represents more than one-third of

household income — are those operating large farms. They have substantial net worth, which cushions uncertain farm income.

USDA examined the disposition of farm subsidies. Crop production is shifting to much larger farms. Since Government commodity payments reflect production volumes for program commodities, payments also are shifting to larger farms. In turn, the operators of very large farms have substantially higher household incomes than other farm households. Thus, Government commodity payments also are shifting to much higher-income households. Since the changes in farm structure appear to be ongoing, commodity payments likely, under current policies, will continue to shift to higher income households.

Exhibit 27: Providing Tools to Help Farmers and Ranchers Stay Economically Viable

		Fiscal Year 2006		
	Annual Performance Goals and Indicators	Target	Actual	Result
2.3.1	Increase the value of risk protection provided to agriculture producers through FCIC-sponsored insurance (\$ Bil)	\$40.2	\$49.9	Exceeded
2.3.2	3.2 Increase percentage of program benefits delivered through a Web environment.	33.0%	33.0%	Met
2.3.3	Increase percentage of beginning farmers, racial and ethnic minorities, and women farmers financed	40.0%	45.9%	Exceeded
2.3.4	Reduce average processing time for direct loans	35 days	31 days	Exceeded
2.3.5	Reduce average processing time for guaranteed loans	14.25 days	12.63 days	Exceeded

Exhibit 28: Trends in Providing Tools To Keep Farmers and Ranchers Economically Viable

		Fiscal Year 2006				
	Trends	2002	2003	2004	2005	2006
2.3.1	Increase the value of risk protection provided to agriculture producers through FCIC-sponsored insurance. (\$ Bil) Baseline: 1999 = \$30.9	\$37.3	\$40.6	\$46.7	\$44.2	\$49.9
2.3.2	Increase percentage of program benefits delivered through a Web environment.	NA	NA	NA	NA	33%
2.3.3	Increase percentage of beginning farmers, racial and ethnic minorities, and women farmers financed	31%	33%	34%	40%	46%
2.3.4	Reduce average processing time for direct loans (days)	NA	41	43	37	31
2.3.5	Reduce average processing time for guaranteed loans (days)	18	15	15	14	12.63

# Strategic Goal 3: Support Increased Economic Opportunities and Improved Quality of Life In Rural America

OBJECTIVE 3.1: EXPAND ECONOMIC
OPPORTUNITIES BY USING USDA FINANCIAL
RESOURCES TO LEVERAGE PRIVATE
SECTOR RESOURCES AND CREATE
OPPORTUNITIES FOR GROWTH



#### **Overview**

USDA's programs support low-interest financing of rural businesses to leverage limited private sector financial resources. USDA funds promote opportunities for economic growth as measured by jobs created and saved.

One of USDA's core missions is ensuring that rural residents enjoy economic opportunities equivalent to those of other Americans. Credit limitations and other market imperfections sometimes restrain the ability of rural economies to create the jobs and incomes that would allow rural families to thrive and rural youth to remain in their communities. USDA programs serve as capital enhancement tools for rural America by providing access to capital for investment in businesses and economic infrastructure. Through capital enhancement and by implementing energy-related provisions of the 2002 Farm

Bill, the Department will facilitate the expansion of economic opportunities in rural areas.

The development of the Internet-based economy provides unique opportunities for rural America. Broadband infrastructure greatly helps mitigate the limitations on business development in rural areas caused by geographical distance and a limited customer base. USDA is providing capital to finance access to broadband service for rural communities. This access is critical to enable rural businesses to participate in the developing global economy.

USDA's Business and Industry (B&I) Guaranteed Loan Program provides up to an 80-percent guarantee to commercial lenders. The program allows lenders to raise the amount of a loan. A 2-year, \$10.9 million B&I guaranteed loan allowed a Florida wood products manufacturer to modernize and increase safety standards while expanding product line and sale of lumber byproducts. This saved or created 176 jobs.

In Nevada, a \$17.5 million B&I loan financed the construction of a 25-bed acute primary care medical center. An emergency room, operating theaters, diagnostic and imaging departments, full laboratory, physical therapy department, and heliport to accommodate patient air transport will make up the 73,681-square-foot facility. When complete, more than 140 people will staff the medical center.

In Wisconsin a \$6.8 million B&I loan to a farmer-owned cooperative (515 farmers in 17 States) enabled the organic producer-distributor to expand its business and to establish a "green" headquarters building that incorporates the latest environmentally sound technologies.

A \$17 million construction loan to an Iowa cold storage facility created 24 jobs. The new automated warehouse allows the business to keep national customers from abandoning the area.

Banking regulations limiting the concentration of credit prevented a bank from providing financing for expansion to an employee-owned engineering firm. A B&I loan guarantee of \$4.4 million allowed this firm to consolidate headquarters facilities in Helena, Montana. Thus, the firm increased its ability to serve new and expanding client requirements. The 260 employee-owners served as the direct beneficiaries.

In Minnesota, a \$13 million B&I guarantee created 57 jobs in a machine and metal fabrication business that would have closed otherwise.



USDA revolving loan programs (IRP, RBEG, RDLG) make small grants to local not-for-profits to re-lend to start-ups, typically sole proprietorships or family partnerships. The recipients usually have insufficient credit histories to qualify for commercial loans. The intermediary organization provides business education and marketing support, along with loans. Under these programs an intermediary can make small loans and usually provide consulting services as well. Typically, these are working capital loans to entrepreneurs trying to provide new services or goods. For instance, in a nine-county area of southern Kentucky, start-up funds were used to purchase equipment for an outpatient home infusion therapy center. This facility will employ 24 people and provide needed medical service.

#### **Key Outcome**

Enhanced Capital Formation for Rural Communities

Not only are rural businesses supported, but the employment opportunities in rural areas are improved. Whether a grant of \$20,000 is used to improve a small town's lighting, or provides targeted training to entice an employer, all rural residents benefit from these investments. When a loan or grant is made to businesses for expansion, modernization or start-up, the local job market mix is increased and the local tax base improved. As a result of the economic stimulation, jobs are created and the economy improves enhancing the quality life for most citizens.

#### **Challenges for the Future**

Rural economies face challenges different from those of urban and suburban areas. These challenges include:

- Historical dependence on natural resources, mostly commodities, subject to cyclical trends and changing regulatory standards and oversight;
- Low profit margins on commodity sales and competition from foreign commodities;
- Large-scale changes in technology and the resulting efficiency gains in these industries along with the perceived limited skills available; and
- Inaccessibility and low-density populations.

Additionally, rural areas typically have underdeveloped public services that make it difficult to attract or retain businesses. They lack public funding for amenities that are offered in urban areas, such as dedicated business parks or expanded transportation links. Education, health care and entertainment typically are perceived to be marginally acceptable in rural areas. Every rural area has unique concerns.

USDA State and area staff work with regional and State entities, using Department dollars and other public and private funds. Some areas need more jobs, while others

are being defined by new industries or commodities. USDA is sensitive to these needs.

USDA's grant programs provide funds to under-resourced rural communities to improve their local infrastructure or expertise to be more attractive to new businesses and maintain appeal to local residents. For instance, Main Street improvements are usually funded by special local business tax assessments, but in marginally viable areas an assessment would not be affordable. Frequently companies looking for a new location need special skill sets and USDA grants can fund small, targeted job training programs.

All rural residents benefit when the local economy prospers. More and better jobs, and more services, such as health care facilities, improve the quality of life and encourage young people to settle and stay. Additionally, even small economic gains can increase public infrastructure through improved schools or expanded amenities like greater entertainment options.



## Selected Results in Research, Extension and Statistics

The economy of rural Appalachian communities historically is tied to the coal and steel industries. The recent decline in these industries and concerns for environmental quality has stressed rural community economic development. USDA funded a company to

develop a value-added product from residual mine waste. Since funding was initiated in 2000, this company has processed and refined approximately 500 tons of mine waste to extract iron oxide for use in the pigment industry. This project reduced local environmental pollution and improved economic opportunities in rural Pennsylvania.

A total of 30,000 agricultural operations from across the Nation participated in the voluntary testing of the 2007 Census of Agriculture's questionnaire in preparation for the data collection and processing the census data in FY 2008. The 2007 Census of Agriculture is expected to be mailed to all agricultural operations in December 2007. Specific changes planned for the 2007 Census of Agriculture include expanded data on organic agriculture, new data on agriculture practices, improved coverage of small and minority operators, and electronic reporting capability for all respondents. Data from the 2007 Census of Agriculture will be released in February 2009.

Considering the high cost of doing business, New Jersey farmers cannot grow the same commodities as farmers in the Midwest competitively. Proximity to the largest consumer market in the Nation suggests that New Jersey farmers should produce high-value prepared foods. A company supported by USDA competitive grants to Rutgers University provides research, education and business-development services to New Jersey's agricultural and food industries. The company became the country's first service-based, food agricultural industry incubator model. It already has become a template for similar programs throughout the U.S.

#### **Analysis of Results**

The number of jobs created or saved is linked directly to the amount of total available USDA business program funding, amounts obligated and disbursed to awardees, and local economic conditions. Annual job targets are based on historical program operations, subsidy rates and annual appropriations. The target job numbers assume a level funding horizon and timely allocations of funds, without regard to the potential impact of major natural disasters. In FY 2006, the aftermath of Hurricane Katrina

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and other natural disasters in rural America hampered job growth potential. Despite this issue, USDA programs met the target for the fiscal year.

USDA exceeded its goal despite a decline in the number of loans and job numbers in one major program. A change in program operations and the impact of Hurricane Katrina delayed fund allocations to the States. This delay, in turn, suppressed demand from applicants. Yet FY 2006 funds created or saved 73,072 jobs, expanding economic opportunities for more than 500 rural communities.

Subsidy rates were low in FY 2001. The low rates caused relatively high program fund levels for some major USDA business programs. At that time, the baseline for jobs created or saved was set at 105,222. Annual budget authorities, subsidy rates and program levels have varied since resulting in general decline in annual job numbers. FY 2006 results were in line with expectations given the level of budget authority, subsidy rate and available program funds.

USDA business programs correlate the expansion of economic opportunity with job growth as measured by jobs created and saved directly related to funded programs. Through the years job information has been gathered in different ways. The business and industry program and some grant programs estimate jobs based on business plan projections. Job counts are verified when each loan or grant is closed. The major revolving loan fund uses a life-cycle formula. State offices put huge efforts into substantially improving their ability to collect,

record and report job information on all programs quickly and consistently.

According to the U.S. Department of Labor, in addition to direct jobs created or saved, the overall economic benefit to the rural community is estimated to be \$2.50 for every dollar in guaranteed loans closed. These investments have long-lasting positive impacts in rural communities. These impacts include bringing more dollars to downtown areas, increasing variety of goods and services available, and offering start-up working capital.

In reality, USDA funds have long-lasting direct and indirect impacts on local rural economies that are hard to measure. Thus, the Department is making a bold attempt to estimate the overall economic impact of budget dollars on rural areas.

USDA has developed a pilot information system, the Socio-Economic Benefit Assessment System (SEBAS), to enhance its ability to measure actual net program—investment effectiveness. SEBAS uses detailed information about Department loan or grant investments in conjunction with other available Federal data resources. This process enables estimates of the direct and indirect impacts of program assistance on local and regional economic performance. It also affects the quality of life in rural areas. SEBAS is being tested with several USDA programs in FY 2007. Future results will measure program effectiveness in many ways and serve as a management tool to help improve program efficiency and performance with limited resources.

Exhibit 29: Strengthen Rural Businesses

	Fiscal Year 2006			
Annual Performance Goals and Indicators	Target	Actual	Result	
3.1.1 Jobs Created or Saved	72,370	73,072	Exceeded	

Exhibit 30: Trends in Creating or Saving Jobs

	Fiscal Year 2006				
Trends	2002	2003	2004	2005	2006

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3.1.1 Jobs Created or Saved	76,301	87,619	81,030	73,617	73,072	
					1	

# OBJECTIVE 3.2: IMPROVE THE QUALITY OF LIFE THROUGH USDA FINANCING OF QUALITY HOUSING, MODERN UTILITIES, AND NEEDED COMMUNITY FACILITIES

#### Overview

USDA successfully improved the quality of life in rural America during FY 2006. The Department financed quality homes for 42,700 homebuyers, new/improved water and waste disposal facilities for 1,500,000 subscribers, new or upgraded electric service for 8,183,649 consumers, broadband telecommunications in 458 counties for 297,027 subscribers and improved community facilities for 12 million rural residents.

The availability of adequate housing is critical to a community's well-being. Ensuring that low-income families have access to decent and safe housing is a major concern in every area, whether urban or rural. USDA provides financing for low- and moderate-income rural families who cannot obtain credit from other sources to help them own homes. Owning a home provides stability for families and gives them the opportunity to strengthen their financial condition through the accrual of equity. The President has expressed his desire to increase homeownership, particularly among minorities. He has established a major initiative to increase minority homeownership nationwide. USDA is implementing an action plan aggressively to support the President's goal.

If new businesses are to operate in a rural community, that community must possess the amenities these firms require and employees desire. These amenities include access to such basic needs as clean water, adequate housing, reliable electricity and telecommunications, and such essential needs as quality education, health care, day care, public safety services and cultural activities. If a community cannot meet the public's essential needs, young people will neither stay in nor migrate to rural areas. USDA is an important source of credit and technical assistance for developing the economic infrastructure of rural America. These resources are

essential if rural residents and communities are to improve their quality of life through increased economic opportunity.

Providing reliable, affordable electricity is essential to the economic well-being and quality of life for all of the Nation's rural residents. The electric programs provide capital to upgrade, expand, maintain and replace America's vast rural electric infrastructure. They also provide leadership, guidance and other benefits.

#### **Key Outcome**

Improved Rural Quality of Life Through Homeownership, New and/or Improved Water and/or Waste Disposal Facilities, New and/or Improved Electric Facilities and/or New or Improved Telecommunications Facilities

In FY 2006, USDA provided funds to construct, renovate or improve 1,000 essential community facilities. Rural Americans had new or improved services available from 133 health care facilities, 520 public safety facilities, 106 educational facilities, 10 energy-related facilities, 211 public buildings and improvements and a number of other essential community facilities. In this period, 12 million rural residents had new or improved services available to them through these facilities.

Water and sewer facilities impact the economic infrastructure of communities. By investing in water and sewer facilities, communities can:

- Save or create jobs;
- Leverage funds with the private sector and local and state agencies;
- ► Attract Federal funds from other agencies; and
- Enlarge the property tax base.

During FY 2006, USDA leveraged \$918,306,538 from other sources with \$1.5 billion of Department funds.

Investments in water and sewer facilities are critical in encouraging economic growth. For example, the wastewater treatment system in Rupert, Idaho, approached its design capacity and became unable to treat its waste and odor problems. Of concern was the continued viability of its industrial customers which provide employment and represents the footing of the local economy. Rupert and the Idaho Department of Environmental Quality joined forces. The city council, working with the 1,946 residential customers, 250 commercial owners and 2 large food processors, decided to upgrade the 28-year old plant. Rupert attracted Government funds and invested its own funds for a total of \$13,230,000. The plant will be capable of treating 2.3 million gallons per day, providing for a 20-year growth pattern. The design enables plant expansion as needed. It increases the plant capacity 18 percent within the existing footprint of the present site. Through extraordinary cooperation, the major industry and commercial customers have laid the foundation for long-term growth and prosperity.

The Mountain City, Tennessee, sewer system suffered numerous overflows and shutdowns for years. These overflows created problems for the inmates and staff of the North East Correctional Center (NECX). NECX is Mountain City's largest employer. The town obtained USDA funding and combined it with financing from the Tennessee Department of Corrections. Upgrading the sewer line will spur growth at the Johnson County industrial park and allow NECX to expand, spurring economic growth.

## Disaster Relief Assistance, Hurricanes Katrina and Rita

On September 29, 2006, the electric programs approved the following requests to defer certain debt service payments on outstanding Rural Utilities Service notes under Section 12 of the Rural Electrification Act. Singing River Electric Cooperative, Inc., of Lucedale, Mississippi, will defer principal in the amount of \$5.7 million on twelve loans. The deferment is for 3 years; and the final maturity of each note will be extended 3 years and Jefferson Davis Electric Cooperative, Inc., of Jennings, Louisiana, will defer principal and interest in the amount

of \$4.9 million on two loans. The deferment is for five years and the final maturity of each note will be extended five years. These deferments and extension of maturity dates will provide financial assistance to these two cooperatives whose systems were significantly damaged by Hurricane Katrina.

USDA electric programs are responsible for the engineering aspects of its borrowers. These aspects include standards, specifications, and other requirements with respect to the design, construction, and technical operation and maintenance of power-plant, distribution, and transmission systems and facilities, including load management, energy conservation and communications. Engineering practices, policies, standards and guidelines relating to electric borrowers systems are developed; analyses are conducted and guidance is provided on matters relating to fuels for electric generating stations and develops related policies and procedures for the electric programs. Criteria, procedures and analyses are developed for the improvement of the operating performance of electric borrowers and for the forecasting of borrowers' power requirements. These standards and specifications enabled cooperatives that were not affected by Hurricane Katrina to assist those that were by sending supplies, equipment and crews. Electricity to cooperative rural residents was re-established quicker than it could have been if the crews and personnel were unfamiliar with the design of the system and lacked the proper replacement equipment.

The Town of Nickelsville, Virginia took advantage of USDA telecommunications funding to implement a Fiber Optic Network. Town officials are hoping the new service will lead to new business prospects and economic development in their community. The project will enable the provision of broadband services, including affordable high-speed Internet access, digital television and telephone services, to households and businesses in the Town of Nickelsville and the surrounding areas. In addition, a new public Internet access site connected to the fiber optic network has been established at the Nickelsville Community Center.

The new Nickelsville center provides free public access computers with fast broadband connections to local residents during specific hours of operation. According to press accounts, the importance of the new fiber network far outweighs its benefits to local residents. The availability of fast broadband helps to level the economic development playing field by allowing rural communities like Scott County to offer the same services as those in larger areas. The introduction of the fiber optic network is expected to draw small companies to rural areas like Nickelsville.

#### **Challenges for the Future**

Challenges to this objective continue to be the increased cost of housing and other building costs. Rising building costs result in fewer homes, community facilities and water and waste systems. A challenge USDA faces regarding water and wastewater is assisting rural communities most in need of its financial and technical services. These communities usually have the least resources for such services. Droughts, limited water resources, extreme temperatures and other environmental factors present unique problems in developing utility systems. Solutions are expensive, resulting in the need for additional grant funds to develop projects.

USDA single-family housing programs assist low- and moderate-income rural residents in becoming homeowners. These programs are designed to strengthen families and communities, enhance wealth creation and contribute to a more broadly based ownership society.

USDA housing program assistance reaches large numbers of rural Americans with services critical to a better quality of life. The program provides direct and guaranteed loans to help rural households achieve homeownership. More than 22,838 low-income rural Americans achieved the dream of homeownership though these programs in FY 2006 which have made a special effort to increase the number of minority homeowners. To stretch resources, the programs' loans and loan guarantees are supplemented with resources from private-sector banks, not-for-profit agencies and State housing finance agencies.

The capital made available through the electric programs ensures that low-cost, reliable electric power is available to rural consumers, businesses, schools, health facilities and other consumers. The consumer density in rural areas is a fraction of that in urban areas. This difference necessitates access to lower cost capital to provide a comparable level of service. The electric program finances the construction of electric generation, transmission and distribution facilities serving 39 million rural residents in 2,500 of the country's 3,100 counties. While rural electric cooperatives deliver about 12 percent of the total kilowatt hours sold in the country, they serve 75 percent of the landmass. Cooperatives service 6.5 consumers per mile of distribution line compared to 33.5 for investor-owned utilities and 43.7 for municipal-owned systems. They also generate \$12,000 per mile of distribution compared to \$58,981 for investor-owned utilities.

Water programs are a leading source of credit for water and waste projects in rural America. They provide low-interest and guaranteed loans, grants and technical assistance to rural communities to develop essential water and waste infrastructure. With dependable infrastructure, communities can sustain economic development or improve the quality of life for their residents. Rural Americans may enjoy the same high standards of living and full participation in the global economy as their urban or suburban counterparts. Thus, the goal of water programs is to make funds available to small communities most in need of drinkable water and ensure that facilities used to deliver drinking water are safe and affordable.

In FY 2006, the programs invested over \$1.6 billion in direct and guaranteed loans and grants to help rural communities develop 1,207 water and waste disposal facilities. These facilities provided new or improved water and waste disposal services to 1,637,554 subscribers.

## Selected Results in Research, Extension and Statistics

The Nurturing Homes Initiative, a collaborative effort between the Mississippi State University supported by USDA funds and the Mississippi Department of Human Service's Office for Children and Youth, provides educational programming and technical assistance to family home providers for the estimated 57 percent of Mississippi's young children in unlicensed child-care settings. The program provides time-efficient and economically feasible training. Significant improvements occurred in the quality of childcare provided by all of the participants. Post-assessment scores revealed that 82 percent of the providers scored above the national median score of the Family Day Care Rating Scale. The scale is designed to assess family child-care programs conducted in a provider's home.

Low- to-moderate income families face many challenges when trying to build assets. USDA, the North Carolina A&T University Cooperative Extension, North Carolina Housing and local lending institutions joined forces to help families in Randolph and Davidson Counties achieve homeownership. This partnership resulted in the availability of no- and low-interest loans, and in financial education classes to help resolve financial issues that could prevent them from qualifying for a loan. Twenty-six participants attended the first financial education workshops. Thirteen successfully obtained an interest-free loan of \$50,000 to purchase homes from USDA for a total of \$650,000.

USDA research on non-metro population change focused on the future impact of the baby boom on rural migration, the relationship between Hispanic in-migration and economic restructuring, and the growing number of African-American retirees choosing to live in non-metro areas. Demographic trends also reflect a relentless geographic expansion of U.S. metro areas, a steady rise in the number of long-distance commuters and rapid population growth in adjacent, non-metro counties. In contrast, more than 1,000 counties experienced overall population loss since 2000, most of which are sparsely populated and isolated from metro regions. With natural increase in non-metro areas now at historically low levels, migration will dominate future rural demographic trends. Thus, the fortunes of rural America in this new century

are linked even more to events beyond its boundaries and with the social, economic, technological and political forces that shape those events. USDA research will continue to focus on the changing economic and social conditions of rural residents as they move through large-scale, demographic transitions.

#### **Analysis of Results**

The targets were selected based on the Department's expectations for loan obligations. The expectations were based on the anticipated price of housing and the probable continuation of the low-interest-rate environment prevalent in 2004 and 2005.

While the Section 502 guaranteed loan program has obligated more funding than last year, the actual number of new homeowners is less than anticipated. The reason for this is that escalating home prices and rising interest rates have made housing less affordable for low- and moderate-income borrowers. Higher home prices and higher interest rates make it more difficult for low- and moderate-income borrowers to qualify for a loan. Those that do qualify need larger loans to purchase their homes, hence, more funding was obligated than last year despite a lower number of new homeowners.

The difficulties from higher interest rates and home prices shifted some of the demand to the direct program because of the payment assistance feature and slightly longer loan terms, making the direct program the only affordable option for many households. The Section 502 direct program fully utilized its appropriated funds plus some additional funding obtained to assist with the recovery efforts from the 2005 hurricane disasters. Thus, the direct program was able to provide more assistance than originally anticipated.

The water program far exceeded this year's goal because of various factors both internal and external to the agency. Demand was much stronger than expected. The loan-to-grant ratio also increased over last year which allowed more loans to be made. Another reason the goal was exceeded was because of USDA state offices funding more projects. The offices had their full allocations in

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place and semi-annual pooling redistributed funding among the States earlier than previous years. Additionally, supplemental appropriation of \$45 million for hurricane-affected areas in the Gulf resulted in additional subscribers being served.

The community facilities program exceeded its goal to provide needed community facilities to rural Americans because of the division's emphasis on public safety and health care facilities. USDA staff has provided outreach at national, State and regional conferences, emphasizing its ability to provide facilities at reasonable rates and terms for rural Americans.

The electric programs exceeded their performance goal target for fiscal year 2006 by 6,583,649 consumers. The 2006 underestimation was due to a change in the interpretation of consumers receiving new or upgraded electric service. Other than in the year 2002, the electric programs have not put into its results the number of generation and transmission borrowers' consumers receiving new or upgraded electric service. The estimation for 2006 was made excluding an estimation of generation and transmission borrowers' consumers receiving new or upgraded electric service. After making the estimation, the electric programs re-evaluated their methods of calculation of consumers. A method was developed which enabled the generation and transmission borrowers' consumers to be included in the calculation and eliminate double-counting consumers. Therefore, the estimation did not include generation and transmission

borrowers' consumers while the results included the generation and transmission borrowers' consumers. Even if the electric programs had not changed their calculation of consumers, the target goal of 1,600,000 would still have been met.

The telecommunications program exceeded its goal of customers served by new or improved telecommunications facilities by 28,563. The telephone loan lending authority was fully utilized. Although the Broadband Loan Program obligations target was unmet, the Broadband Program exceeded its target for customers served by new or improved telecommunications facilities by more than 100 percent.

USDA continues to fund the deployment of advanced telecommunications facilities in rural America. This continued investment results in many financial and technical benefits for the borrowers. One result is the availability of new or improved service for the borrowers' customers, the residents and businesses that they serve. In some cases, the financing provided by USDA reduces the operating and capital costs of the borrower, without a direct increase in the number of subscribers. Thus, the number of customers served by new or improved telecommunications facilities has fluctuated over the last few years, but a substantial number of customers continue to receive the benefit of these investments in infrastructure made possible by USDA's rural development programs.

Exhibit 31: Improving Rural Quality of Life Through Homeownership Opportunities

		Fiscal Year 2006		
	Annual Performance Goals and Indicators	Target	Actual	Result
3.2.1	Homeownership opportunities provided	43,500	40,517	Unmet

Exhibit 32: Trends in Rural Home Ownership

	Fiscal Year 2006				
Trends	2002	2003	2004	2005	2006
3.2.1 Homeownership opportunities provided	43,036	44,130	48,894	43,224	40,517

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#### Exhibit 33: Improving Rural Quality of Life Through Water and Waste Disposal Facilities

		Fiscal Year 2006			
	Annual Performance Goals and Indicators	Target	Actual	Result	
3.2.2	Number of program borrowers' subscribers (or customers) receiving new and/or improved water and/or waste disposal service.	570,000	1,500,000	Exceeded	

#### Exhibit 34: Trends in Water and Waste Disposal Service

		Fiscal Year 2006				
	Trends	2002	2003	2004	2005	2006
3.2.2	Number of program borrowers' subscribers (or customers) receiving new and/or improved water and/or waste disposal service.	796,768	593,582	965,780	1,325,000	1,500,000

#### Exhibit 35: Improving Rural Quality of Life Through Community Facilities

			Fiscal Year 2006				
	Annual Performance Goals and Indicators	Target	Actual	Result			
3.2.3	Customers served by new or improved community facilities (Mil)	12	15.2	Exceeded			

#### Exhibit 36: Trends in Community Facilities

Fiscal Year 2006						
	Trends	2002	2003	2004	2005	2006
3.2.3	Customers served by new or improved community facilities (Mil)	7.2	7.2	12	12.9	15.2

#### Exhibit 37: Improving Rural Quality of Life Through Electric Facilities

		Fiscal Year 2006		
	Annual Performance Goals and Indicators	Target	Actual	Result
3.2.4	Customers served by new or improved electric facilities	1,600,000	8,183,649	Exceeded

#### Exhibit 38: Trends in Electric Facilities

Fiscal Year 2006						
	Trends	2002	2003	2004	2005	2006
3.2.4	Customers served by new or improved electric facilities	11,524,931	3,745,559	4,325,985	2,360,477	8,183,649

Exhibit 39: Improving Rural Quality of Life Through Telecommunications Facilities

		Fiscal Year 2006				
	Annual Performance Goals and Indicators	Target	Actual	Result		
3.2.5	Customers served by new or improved telecommunications facilities	268,464	297,027	Exceeded		

Exhibit 40: Trends in Telecommunications Facilities

Fiscal Year 2006						
	Trends	2002	2003	2004	2005	2006
3.2.5	Customers served by new or improved telecommunications facilities	N/A	382,229	373,813	232,249	297,027

## Strategic Goal 4: Enhance Protection and Safety of the Nation's Agriculture and Food Supply



USDA provides a secure agricultural production system and healthy food supply to consumers. The Department accomplishes this task by protecting the food supply against pests and diseases, minimizing production losses, maintaining market viability and containing environmental damage. USDA also ensures that the commercial supply of meat, poultry and egg products moving in interstate commerce or exported to other countries is safe, wholesome, labeled and packaged

correctly. Additionally, the Department ensures that meat, poultry and egg products imported from other countries are produced by a system equivalent to USDA's.

Ensuring the safety of America's meat, poultry and egg products requires a strong infrastructure. Thus, USDA has stationed public-health servants throughout the country and in laboratories, plants and import houses. USDA will take an enhanced risk-based approach to inspection. Through these efforts, the Department will reallocate its resources to focus more closely on food safety systems and preventing public health problems before they occur. This initiative advances a coordinated national and international food safety, risk management system from farm to table. A significant contribution to the risk-based approached to inspection is the development of a public health infrastructure. This infrastructure will include: improvements to public health data analysis and information exchange; advanced surveillance and detection systems; a well-trained workforce; swift, secure and multi-directional communications; and disaster preparedness and response capability.

## OBJECTIVE 4.1: REDUCE THE INCIDENCE OF FOODBORNE ILLNESSES RELATED TO MEAT, POULTRY, AND EGG PRODUCTS IN THE U.S.

#### Overview

Protecting the Nation's food supply from potential hazards is a formidable task. To accomplish this goal, USDA requires sound science to make the appropriate decisions and policy development. Currently, a heightened public apprehension that terrorists could target the Nation's food supply exists. Additionally, there is the potential for new and emerging microbial hazards. Thus, the Department must assess and update its food safety systems continually.

During the past year, USDA has continued to eliminate foodborne illness through testing, risk assessments, partnerships with its stakeholders and policy decisions based on sound science.



USDA conducted approximately 1,350 food safety assessments in FY 2006. A food safety assessment is a comprehensive evaluation of an establishment's food-safety system, including its sanitation controls, its compliance with microbiological performance criteria, the adequacy of slaughterhouse and processing plant Hazard Analysis and Critical Control Point systems, the operation of its prerequisite programs and its response to food-safety control deviations. Enforcement, investigation and analysis officers conduct food safety assessments, usually in response to a specific cause like a positive sample.

USDA provides safe handling and preparation information to manufacturers of meat, poultry and processed egg products, and to consumers. This promotes product safety and reduces the opportunity for crosscontamination between products. For retail and foodservice operations, USDA works collaboratively with the U.S. Food and Drug Administration and State programs through the Conference of Food Protection. This partnership among regulators, industry, academia, professional organizations and consumers works to identify problems, formulate recommendations and develop and implement practices that ensure food safety. These efforts ensure that the Food Code contains accurate, science-based guidance. The Food Code is the model for the establishment of State and local food regulations regarding food safety and sanitation.

The Department also supports public health by developing consumer information and education programs. These programs are structured around a set of food safety messages for the general public, are based on science, use social marketing principles and are delivered through a network of partnerships.

#### **Challenges for the Future**

USDA is continually challenged to prevent product contamination, and to educate the public on safe food handling.

One of the most significant challenges faced by USDA is that the safety of meat, poultry and egg products can become endangered after Department inspection and prior to consumption. Consequently, USDA is assessing how to limit or prevent accidental or intentional contamination.

USDA studied *Listeria monocytogenes* in ready-to-eat meat and poultry products and is developing a comparative risk assessment. This comparative risk assessment will assist USDA in targeting its efforts to public health variables that are shown to be more effective at mitigating risk.

USDA will continue to assess which retail practices present greater risk for introducing *E. coli O157:H7* into raw ground beef and then target such operations for testing. The Department believes that its regulatory verification testing program can ensure that industry and retail take steps to control food safety hazards. USDA increases targeted testing at high-risk operations.

As the statistics in *Salmonella* show, control of this pathogen continues to be a challenge for USDA. Therefore, USDA has announced the *Salmonella* initiative and the scheduling of food safety assessments to target broiler production in 2006 and 2007. While this group of pathogens is commonly associated with poultry and eggs, it is found in multiple products such as produce, dairy products and red meats.

Additional challenges faced by USDA include the continued targeting of at-risk groups, namely the very young, pregnant women, older adults, people with chronic diseases, those with weakened immune systems and underserved populations.

### Selected Results in Research, Extension and Statistics

USDA estimates the societal costs of foodborne illnesses from pathogens. Department researchers updated the cost of foodborne illness from *Escherichia coli O157 (O157 STEC)*. They used the U.S. Centers for Disease Control and Prevention (CDC) estimate of annual cases and newly available data from the Foodborne Diseases Active Surveillance Network (FoodNet) of CDC's Emerging Infections Program. USDA estimates that the annual cost of illness from *O157 STEC* was \$406 million in 2003,

including \$370 million for premature deaths, \$31 million for medical care, and \$5 million in lost productivity. The Department recently added the *O157 STEC* estimates to the *Foodborne Illness Calculator* to its Web site.

USDA research on traceability in food supply showed that there are many private-sector, third-party certifiers worldwide. The Department and the University of Pennsylvania conducted a workshop bringing together insurance industry representatives, third-party certifiers and standards owners, lawyers and Government food-safety experts and certifiers. The workshop examined the relation between USDA programs and third-party food safety certification, especially questions of liability. The Department learned that, while certifiers have avoided legal liability, they appear to be contributing to stricter food safety production decisions throughout the supply chain. The workshop marked a first step in assessing the importance of certification.

As consumers increasingly rely on others to prepare food, the importance of a knowledgeable and skilled workforce for all food outlets is critical in preventing foodborne illness. The Safety Awareness in the Food Environment (SAFE) program provides food workers with practical information about food safety and sanitation. In 2005, the University of New Hampshire Cooperative Extension, supported in part by USDA funds, conducted 32 SAFE programs, reaching 512 food workers. Sixty-nine percent of the participants scored 92 percent or greater on the post-workshop knowledge questionnaire. Of seven follow-up phone surveys, 86 percent of food managers in establishments sponsoring a SAFE program reported food safety practice changes in their employees.

Clostridium perfringens is a common bacterium associated with foodborne illness in the U.S. This bacterium produces a toxin termed enterotoxin. The chromosome responsible for enterotoxin production, CPE, has been strongly correlated to Type A food poisoning. Research funded through the National Research Initiative Food Safety Program determined that the bacterium containing the CPE gene survived refrigeration (4°C) and

freezing (-20°C) temperatures better, especially in meat products. Thus, the *C. perfringens* bacterium containing the CPE gene would be more difficult to kill by conventional methods and more likely to cause sickness. While the CPE gene's role in mediating cold and heat sensitivity remains unclear, this information provides scientists a new avenue for improving food safety.

A portable assay for E. coli O157:H7 will provide food safety regulators with additional tools. Most illness from E. coli O157:H7 has been associated with eating undercooked, contaminated ground beef. There is an urgent need for sensitive, specific, and rapid detection of these bacteria. USDA scientists developed a new assay based on a commercially available, portable fiber optic biosensor. This assay is specific for E. coli O157:H7 and can detect very low levels of the bacteria in ground beef within five hours. Higher levels of contamination can be detected in even less time. The biosensor and battery pack can be carried in a briefcase. Its compactness allows assays to be performed at the farm, processing plant, distribution center or retail store. This portable assay provides the food industry and regulatory agencies a new screening tool to detect foodborne pathogens and food security threats.

A new risk assessment model will help food safety regulators better address the issue of *Listeria* in ready-to-eat foods. Predicting it is a high priority for USDA, DHHS and FDA. Department scientists produced models that enable risk assessors and food safety managers to predict the *Listeria* activity in delicatessen salads at different storage temperatures and product formulations, and in commercially prepared cheeses. The models assist Federal regulatory agencies in developing risk assessment information for consumers and food companies in designing salad formulations that present lower health risks to consumers. The research also has helped food companies meet new Federal regulations.

Methods to detect bacteria will help food safety regulators to ensure the safety of seafood better. USDA scientists and collaborators developed a new, rapid, inexpensive, enzyme-based assay to detect pathogenic Vibrio bacteria in seawater and shellfish. The assay may be used in identifying peak periods when Vibrio bacteria are at their highest levels in east, west and gulf coast oysters and growing waters. This would allow regulatory agencies to control shellfish harvesting based on Vibrio bacteria levels rather than using the current fecal coliform levels as indicators of pollution. Since the assay is inexpensive and does not require major equipment, it also could screen water quality in aquaculture facilities to forewarn the producer or processor of potential problems. Thus, regulators could take remedial actions.

#### **Key Outcome**

Basing Policies on Science

USDA issued two instructions related to *Listeria* monocytogenes that clarified procedures used by consumer safety inspectors to conduct daily, routine inspections. The instructions also provided new procedures for enforcement, analysis, and investigation officers to follow. This was designed to determine the effectiveness of controls for *Listeria monocytogenes*. In March 2006 USDA began the routine testing of foodcontact surfaces and the environment in addition to testing product. Testing surfaces provides a better indication of sanitary controls than product testing alone. *Listeria monocytogenes* is an environmental contaminant known to become permanently resident in establishments.

Regarding *E. coli O157:H7*, USDA is conducting a baseline study for trimmings used to make raw ground beef. Scientists serving on the National Advisory Committee on Microbiological Criteria for Foods (NACMCF) reviewed the study. NACMCF provides impartial, scientific advice to Federal food-safety agencies in developing national food-safety systems, following products from the farm to final consumption. The committee issued its recommendations in a report titled "NACMCF Response to USDA Request for Guidance on Baseline Study Design and Evaluations for Raw Ground Beef Components." The results of this study are expected

to inform USDA risk managers and risk assessors about this pathogen's prevalence in trim used to produce raw ground beef.

The Department also took steps to collect production volume information at inspected beef facilities. This information, along with the results of the baseline study, will be used to develop a risk-based verification testing program.

#### **Analysis of Results**

The overall percentage of positive *Listeria monocytogenes* regulatory samples for FY 2006 was less than the targeted performance measure. USDA uses the results from the ALLRTE program (i.e., a random sampling of all ready-to-eat meat and poultry products) to reflect progress relative to *Listeria* control. USDA is pleased with the results of this program, particularly because within the sample population, products were included that are at high-risk for causing illness and for supporting the growth of *Listeria monocytogenes*. In a separate sampling program targeted at these high risk products, the overall percentage of positive samples remains lower than that of the ALLRTE sampling program.

Since an initial substantial decline in the percentage of *E. coli O157:H7*-positive raw ground beef samples, beginning in FY 2002, USDA has been able to maintain the percentage positive samples at or below the targeted performance measure. In FY 2006, the overall percentage of positive samples showed a further decline from the

FY 2005 level. The Department will continue to monitor data related to human infections associated with the consumption of beef products. If there is a rise in human illness associated with this pathogen and the consumption of beef, or a rise above 0.20 percent in the regulatory testing program, USDA will take immediate steps.

USDA now collects industry data on RTE products as part of the October 2003 *Listeria* rulemaking. The Department used this data to revise its *Listeria* testing in RTE products. In FY 2006, USDA used this data as one means to identify higher risk operations and products. The Department targets its regulatory verification testing program towards operations that produce higher risk products. USDA now tests food contact surfaces and the environment routinely, in addition to product.

To illustrate the significance of these trends, the accomplishments of USDA's food safety initiatives are presented in CDC's annual 2005 report on the incidence of infections from foodborne illness. The report, which was released Spring 2006, noted significant declines from a 1996-1998 baseline in *E. coli O157:H7*-related illnesses (29 percent). CDC attributes the decline, in part, to policies USDA implemented in 2002 and 2003. In late 2003, the Department released data that showed a 25-percent drop in the percentage of positive *Listeria monocytogenes* regulatory samples from the previous year, and a 70-percent decline compared with years prior to the implementation of HACCP. The report also noted that illness associated with *Listeria monocytogenes* declined 32 percent from the baseline years of 1996-1998.

**Exhibit 41:** Pathogen Reduction (Food Inspection)

		Fiscal Year 2006		
	Annual Performance Goals and Indicators	Target	Actual	Result
4.1.1	Prevalence of <i>Listeria monocytogenes</i> in ready-to-eat meat and poultry products	0.70%	0.60%	Exceeded
4.1.2	Prevalence of E. coli O157:H7 in ground beef	0.20%	0.16%	Exceeded

**Exhibit 42:** Trends in Pathogen Reduction (Food Inspection)

	Fiscal Year 2006				
Trends	2002	2003	2004	2005	2006

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Ī	4.1.1	Prevalence of Listeria monocytogenes in ready-to-eat meat and poultry products	1.03% Baseline	0.0%	0.89%	0.70%	0.60%
	4.1.2	Prevalence of E. coli O157:H7 in ground beef	0.77% Baseline	0.37%	0.19%	0.20%	0.16%

In 2005, the incidence of illnesses associated with *Listeria monocytogenes* was higher than its lowest point in 2002. It should be noted that the overall increase in illnesses reported by CDC reflected all foods, not just meat and poultry products. USDA, in 2003, issued its interim final rule on *Listeria monocytogenes* that specifically addressed control for this pathogen in ready-to-eat meat and poultry products. Since then, the percentage of positive *Listeria monocytogenes* regulatory samples has been declining in these areas.

#### **Key Outcome**

Raising Public Health Awareness

USDA consumer-education programs are based on "integrated marketing." This concept has three components:

- Mass media, or reaching out to the public;
- Cluster targeting, which uses demographic, geographic and socio-demographic information to tailor communications to segmented audiences; and
- One-on-one interactions, through the:
  - USDA Meat and Poultry Hotline; and
  - "Ask Karen," which complements the hotline and allows USDA to expand its outreach programs, promote food safety and defense, and protect the public health.



Each component of the integrated marketing program is developed based on risk research, science drawn from epidemiological studies concerning foods and behaviors that contribute to food safety risks, and social marketing principles derived from theory, market and consumer research.

Significant work continued with the USDA Mass Media Campaign. The campaign objective is to create a program that includes an umbrella brand and campaign logo, an educational strategy for targeted audiences and a media buy plan. The campaign aims to gain acceptance of changing behaviors involving safe food handling. Through this campaign, USDA will reach educators, health officials, media, caregivers and consumers, including children and at-risk and underserved populations.

USDA also launched the "Be Food Safe" education campaign. The launch took place at the Food Safety Education Conference, "Reaching At-Risk Audiences and Today's Other Food Safety Challenges." The conference focused on education programs and strategies for those most at risk. It also updated educators on the latest in food-safety education and showcased new national education projects.

During the conference, USDA unveiled a brochure series targeted to specific audiences most at-risk for foodborne illness. The brochures covered food safety for transplant recipients, people with HIV/AIDS, diabetics, cancer patients and older adults.

Food safety publications for both industry and consumers have been translated into many languages including Spanish, Korean, Vietnamese and Mandarin Chinese. USDA also uses national television, cable networks, educational television, radio, magazines, newspapers and Web sites to enhance public education efforts. Additionally, a hotline offers Spanish-speaking food-safety specialists and Spanish-language Web sites and printed materials.

In other outreach efforts to the Hispanic community, USDA developed a brochure and poster informing that community's consumers about food safety and protecting their families from potential dangers. The Department also created a public-service announcement and launched an outreach program partnering with Hispanic organizations and supermarkets. USDA continues to work with the Partnership for Food Safety Education on their Hispanic outreach initiative. USDA also targets other underserved populations that include African-Americans, Asian-Americans, Native American Indians and Alaskan Natives, and the visually-impaired.

The Department continues its multi-year effort to provide technical assistance and compliance guidance concerning major rules, policies and directives to small and very small meat, poultry and egg processing establishments. These outreach sessions bring industry and inspection program personnel together to promote a uniform understanding of food safety regulations. Information about the outreach sessions may be found at: <a href="https://www.fsis.usda.gov/Science/Small Very Small Plant Outreach/index.asp">www.fsis.usda.gov/Science/Small Very Small Plant Outreach/index.asp</a>.



#### **Analysis of Results**

A key outcome in reaching this goal is a significant increase in raising public health awareness. By developing consumer education programs and disseminating consumer information with food safety messages about the safe handling, preparation and storage of meat, poultry and egg products through various channels of communication, USDA is providing the tools and empowering consumers with the knowledge to prevent and reduce the risk of foodborne illness.

Exhibit 43: Public Health Awareness

		Fiscal Year 2006			
	Annual Performance Goals and Indicators	Target	Actual	Result	
4.1.3	Number of consumers reached with food safety messages (millions of viewings)	94	94*	Met	

<sup>\*</sup>end-of-year projection as of 9/19/06

#### Exhibit 44: Trends in Public Health Awareness

		Fiscal Year 2006				
	Trends	2002	2003	2004	2005	2006
4.1.3	Number of consumers reached with food safety messages (millions of viewings)	90 Baseline	92	123	120	94*

<sup>\*</sup>end-of-year projections as of 9/19/06

## OBJECTIVE 4.2: REDUCE THE NUMBER AND SEVERITY OF AGRICULTURAL PEST AND DISEASE OUTBREAKS

#### **Key Outcome**

Improve Animal and Plant Diagnostic Laboratory Capabilities

#### Overview

The National Animal Diagnostic Network and Plant Diagnostic Network Centers ensure timely disease detection. They also enhance the process of producing and maintaining a timely, comprehensive catalogue of pest and disease outbreak occurrences in a nationally accessible database. Identifying new or uncommon pests and diseases accurately will allow USDA, in conjunction with the States, to expedite initial control responses, verify the physical boundaries of an outbreak and initiate regional or national containment strategies. The ultimate performance measure for these networks is their disease-detection preparation. The networks will continue to study new diseases regularly to protect the Nation from accidental or deliberate introduction of diseases.

#### **Analysis of Results**

The performance goal was met. Limited trend data are available since the effort began in FY 2003 (plant) and FY 2004 (animal).

Plant disease (and insect) detection criteria have been developed for *soybean rust, sudden oak death, Ralstonia stem rot, plum pox virus, pink hibiscus mealybug* and *potato wart. Soybean rust* is a fungal disease that attacks the foliage of a soybean plant, causing its leaves to drop prematurely. *Sudden oak death* is a plant disease that attacks many types of plants and trees common to the Pacific Northwest. *Plum pox virus* browns the flesh and deforms stone fruit, making it unmarketable. *Pink hibiscus mealybug* is a serious insect threat to agricultural, ornamental and horticultural plants in tropical and sub-

tropical areas. *Potato wart* creates ugly, warty outgrowths on potato plants.

Animal disease-detection criteria have been developed for the following eight high-consequence diseases. Foot-and-Mouth Disease is a severe, highly contagious viral disease of cattle and swine. Exotic Newcastle Disease is a contagious and fatal viral disease affecting all birds. Classical Swine Fever, or hog cholera, is a highly contagious viral disease of swine. High Pathogen Avian Influenza and Low Pathogen Avian Influenza are viruses that can cause varying amounts of clinical illness in poultry. In 2006, the National Animal Health Laboratory Network (NAHLN) worked with National Research Initiative funded wild bird sampling and other wildlife surveillance efforts to provide additional cooperative detection capabilities for various strains of Low Pathogen Avian Influenza and High Pathogen Avian Influenza. Bovine Spongiform Encephalopathy is a chronic degenerative disease that affects the central nervous system of cattle. Scrapie is a fatal, degenerative disease affecting the central nervous system of sheep and goats. Chronic Wasting Disease attacks the central nervous system of deer and elk. NAHLN is part of a national strategy to coordinate the Nation's Federal, State and university laboratory resources.

USDA agencies partner with State agencies and universities to achieve a high level of agricultural biosecurity. This process is done through the early detection, response and containment of outbreaks of invasive pests and diseases. The diagnostic laboratories, adequately staffed and stocked with cutting-edge technology, are essential to accomplishing this mission.

Future challenges to improving laboratory capabilities include making non-Federal funding available. This funding could be used to expand laboratory links in each State, increase the number of screened diseases and their detection criteria, and ensure that more strategically located laboratories are prepared to deal with geographically relevant disease threats.

Exhibit 45: Ensure the Capabilities of Plant and Diagnostic Laboratories are Improved

			Fiscal Year 2006			
	Annual Performance Goals and Indicators	Target	Actual	Result		
4.2.1	Improve the capabilities of animal and plant diagnostic laboratories:			Met		
	Specific plant diseases labs are prepared to detect	6	6			
	Specific animal diseases labs are prepared to detect	8	8			

**Exhibit 46:** Trends Improving the Capabilities of Diagnostic Laboratories

		Fiscal Year Actual				
	Trends	2003	2004	2006		
4.2.1	Improve the capabilities of animal and plant diagnostic laboratories:  Specific Plant diseases labs are prepared to detect	2	3	6		
	<ul> <li>Specific animal diseases labs are prepared to detect</li> </ul>	N/A	6	8		

N/A = Not Available

### Selected Results in Research, Extension and Statistics

A new *Chemical Distribution Rate* publication, released December 2005, contains data for agricultural chemical usage for percent of acres treated, number of treatments, rate per application and rates per crop year. Data for the 2005 field and fruit crops were incorporated into the *Agricultural Chemical Usage Field Crops Summary, May* 2006, and *Agricultural Chemical Usage Fruit Crops Summary, July* 2006. These publications provided users distribution-rate information on an accelerated schedule.

Insects and diseases reduce peanut yields and increase production costs for farmers and may be difficult and expensive to control with conventional methods. The University of Georgia, with partial support by USDA funding, have identified six plant introductions from Bolivia in the USDA Peanut Germplasm Collection and additional land race cultivars from Bolivia. These products have shown good to excellent levels of pest resistance and better yield than accessions used to create the cultivars currently being grown. Peanut-breeding programs have used these new sources of resistance to add diversity to peanut gene pools. They also have increased pest-resistance levels substantially in elite

candidate peanut breeding lines. This finding will increase profitability for producers, make the food supply safer through reduced pesticide inputs and reduce the environmental impacts of pest-control activities.

Currently, soybean cyst nematode is the most damaging pest to U.S. soybean production. It causes \$1 billion annual crop losses. Genetic resistance is the only viable means to combat the SCN pathogen. With USDA funding, the Tennessee Agricultural Experiment Station developed and released a new soybean germplasm line (JTN-5303) with resistance to multiple SCN races. JTN-5303 currently is being accessed by public and commercial breeders to incorporate SCN resistance throughout major soybean production regions. This line is resistant to every major SCN race in Tennessee, resulting in improved, sustainable crop production. An estimated \$9 million in crop loss in Tennessee alone can be eliminated through SCN resistance.

New vaccines are being developed to protect against multiple strains of *avian coccidiosis*. Coccidiosis is a common intestinal protozoan infection of poultry that seriously impairs the growth and feed utilization of infected birds. It is caused by seven distinct species of

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intracellular parasites. While anti-coccidial drugs are the primary control method, drug-resistant coccidia strains

are emerging worldwide. Additionally, while vaccines provide an important alternative to anti-coccidial drug therapy, existing vaccines, which are comprised of one or more live coccidian species, do not provide cross-protection against all seven species. USDA scientists have discovered a protein named SZ1 that is present in three species. The full-length gene from *Toxoplasma gondii* was characterized and expressed in a bacterial system. Then, the protein was used to make antibodies to *T. gondii* SZ1. These antibodies are being evaluated to determine whether this protein provides cross-protective immunity across *Eimeria* strains.

USDA overseas laboratories helped identify a biologicalcontrol agent to mitigate the impact of the olive fruit fly. Invasive weeds and insect pests of foreign origin cause more than \$100 billion annually in economic losses and ecological problems in the U.S. Olive fruit fly first was reported in California in 1998 and now is established in olive-growing regions in the central part of the state. The fly is capable of infesting 100 percent of the fruit on a tree, rendering the harvest unmarketable. In 2004, a project was initiated at the European Biological Control Laboratory (France). Olive fly parasitoids (small wasps) were identified and sent to the University of California-Berkeley and California Department of Food and Agriculture cooperators, who first released the bio-control agent in 2005. When established, the parasitoids are expected to suppress an insect pest that threatens the growing (\$60-100 million) U.S. olive industry.

Mass production of biological control agents offers new hope for controlling the glassy-winged sharpshooter (GWSS) and *Pierce's Disease*. USDA scientists determined that an increasing proportion of GWSS adults become positive for *Xylella fastidiosa* (the cause of *Pierce's Disease*) as the insect ages, with correlate increases in concentration of the bacterium. Thus, older leafhoppers serve as a greater threat. *Pierce's Disease* plagues grapes, agronomic and horticultural crops, and landscape, ornamental and shade trees. To reduce insect numbers, USDA scientists collected and evaluated four species of GWSS egg parasitoids (an insect that

parasitizes another insect). These natural enemies were shipped to the California Department of Food and Agriculture for mass rearing and release. One species, Gonatocerus triguttatus, now is established and spreading beyond the release locations.

#### **Key Outcome**

A Secure Agricultural Production System and Healthy Food Supply

#### Overview

To provide a secure agricultural production system and healthy food supply to U.S. consumers, USDA's goal is to reduce the number and severity of agricultural pest and disease outbreaks. This work includes:

- Safeguarding animal and plant resources against the introduction of foreign agricultural pests and diseases, while meeting international trade obligations;
- Detecting and quickly responding to new invasive pests and diseases and emerging agricultural health situations;
- Managing existing agricultural pests and diseases and wildlife damage effectively; and
- Developing and applying scientific methods that benefit agricultural producers and consumers, protect the health of animal and plant resources, and sustain agricultural ecosystems.

USDA's efforts in FY 2006 prevented the introduction of foreign animal disease that spread beyond the original area of introduction. Such a spread could cause severe economic or environmental damage, or threaten animal health. Specific programs described below were conducted successfully to protect poultry, cattle, swine and other species.

Despite USDA's efforts, three emerging plant pest programs had pests or diseases that spread beyond the quarantined areas in place at the beginning of FY 2006. These were the programs for *Emerald Ash Borer (EAB)*, *Sudden Oak Death (SOD)* or *Phytophtora ramorum)*, and

Citrus Canker. EAB is an exotic beetle that nibbles on the inner bark of ash trees, disrupting the tree's ability to transport water and nutrients. SOD is a disease that is killing oaks and other plant species in the western U.S. Citrus canker is a highly contagious bacterial disease of citrus crops. The programs to eradicate the Asian Long Horned Beetle and manage the Glassy-winged Sharpshooter prevented outbreaks of target pests/diseases outside their quarantine areas. In collaboration with Federal and State regulatory agencies and scientists, USDA developed a Citrus Health Response Plan (CHRP). CHRP is a comprehensive framework for responding to citrus health concerns. Beginning in FY 2007, USDA will address CHRP's performance aspects.

USDA's programs designed to reduce the number and severity of pest and disease outbreaks in plants and animals contribute to the good life Americans enjoy. Due in part to the protection afforded by these programs to the health of plants and animals, U.S. consumers receive an abundance of food and fiber. They also remain relatively free of diseases that may be transmitted to them from animals (zoonotic diseases) that affect people in many countries. Protecting the Nation's plant and animal resources provides many Americans with employment in the agricultural sector and a livelihood serving farmers with needed tools, supplies, technical knowledge and money. USDA's efforts help to ensure that such allied industries as the food-processing and pharmaceutical industries, and grocery distributors receive the raw materials they need to produce their products and services. Its efforts also help to maintain public and private landholders' investments in a productive capacity, providing economic stability to American society. By protecting U.S. plant and animal resources from pest and disease outbreaks, USDA ensures U.S. agricultural resources can move freely in international trade. Because of these programs, Americans can enjoy parks, preserves and recreational areas in their healthy natural state. Americans landscape their property with healthy nursery stock and plant pure seed. The North American ecosystem depends in part on USDA's efforts to reduce the number

and severity of pest and disease outbreaks. The global ecosystem depends upon international efforts to minimize the movement of harmful species. USDA participates in these efforts as a world leader, benefiting the public in many countries.

#### **Challenges for the Future**

Important challenges face USDA in its efforts to reduce the number of pest and disease outbreaks. One is to prevent harmful exotic species from entering the country. If they do enter, the bigger challenge is detecting them early enough to reduce their spread and eradicate them before they do significant damage. To help exclude and detect, USDA creates and continually updates endemic pest and disease information, and monitors and conducts surveys in cooperation with States and industry. Survey data are essential for initiating and directing programs. They also result in better pest and disease management. In the future, USDA will increase and expand monitoring and surveillance activities. This process will include identifying potential pathways for animal disease transmission and increasing the number and intensity of plant pest surveys throughout the U.S. In addition to early detection, the spread of communicable animal pests and diseases can be prevented by regulatory enforcement activities.

Once an exotic pest or disease is reported, USDA must respond immediately by investigating and taking emergency action if necessary. To meet this challenge, the Department develops pathway studies and thoroughly investigates the progression of outbreaks to determine the origin of plant and animal pests and diseases. Substantial costs are incurred as the result of outbreaks and introduction of economically significant plant and animal pests and diseases. USDA seeks to reduce these costs through enhanced, science-based, early detection and rapid response efforts.

In an emergency, the challenge is to mobilize a sizeable effort to eradicate or eliminate the disease or pest problem. USDA is continuing to enhance emergency-coordination efforts and emergency-response capabilities.

USDA will procure and strategically store materials required to respond to the most threatening foreign animal diseases. This will allow the government to provide rapid intervention in the case of an outbreak. USDA agencies are participating on a government-wide team created in FY 2006. The team develops and implements an Avian Influenza Response plan. USDA also will develop emergency management capacity to respond to emergencies involving plant pests and diseases better.

A final challenge is to minimize the economic impact of harmful diseases and pests where eradication is not feasible or will take many years to achieve. To accomplish this task, USDA monitors endemic diseases and pests through surveys. The surveys are designed to detect the location of pests and diseases. The Department also conducts inspections aimed at preventing their spread into non-infested parts of the country. Additionally, USDA works to prevent the spread of such zoonotic diseases as rabies and protects American agriculture from detrimental predators through identification, demonstration and application of the most appropriate methods of control.

USDA has several groups of programs that focus on reducing the number and severity of pest and disease outbreaks, including Pest and Disease Exclusion Programs, Plant and Animal Health Monitoring Programs, Pest and Disease Management Programs, and Scientific and Technical Services Programs.

USDA's Pest and Disease Exclusion Programs prevent the introduction of foreign plant and animal pests and diseases. The Department monitors plant and animal health throughout the world and uses the information to establish effective import policies. USDA works with other countries to control or eradicate agricultural pests and diseases abroad. It develops quarantine regulations to prevent them from being imported into the U.S. USDA works with the U.S. Department of Homeland Security to ensure compliance with those regulations at domestic ports of entry and protect American borders. USDA's exclusion programs foster a trade environment that allows

for a common understanding of international animal and plant health standards. The programs in this grouping include Agricultural Quarantine Inspection, Cattle Ticks, Foreign Animal Disease/Foot and Mouth Disease, Fruit Fly Exclusion and Detection, Screwworm, Tropical Bont Tick, and Import Export (Domestic).

USDA's Plant and Animal Health Monitoring Programs quickly detect and diagnose new pests and diseases. USDA conducts surveys in cooperation with the States to detect the pests and diseases, store the information and analyze it. The Department partners with States and industry stakeholders to determine if there is a need to establish new pest or disease-eradication programs, and develop response capabilities for outbreaks. The programs in the Plant and Animal Health Monitoring grouping include Animal Health Monitoring and Surveillance, Animal and Plant Health Regulatory Enforcement, Pest Detection, Bio-surveillance, Emergency Management Systems, Highly Pathogenic Avian Influenza, Pest Detection, Select Agents, and Wildlife Disease Monitoring and Surveillance.

USDA's Pest and Disease Management Programs are cooperative efforts with States to detect, prevent and eradicate pests and diseases harmful to agriculture. USDA monitors and regulates interstate shipments of plants, livestock and related materials to prevent the spread of pests and disease and the distribution of impure, unsafe and ineffective materials and products. USDA also protects agriculture from detrimental animal predators through identification, demonstration and application of the most appropriate methods of control. The programs in this grouping include: Aquaculture; Bio-control; Boll Weevil; Brucellosis; Chronic Wasting Disease; Cotton Pests; Contingency; Emerging Plant Pests; Golden Nematode; Grasshopper; Gypsy Moth; Imported Fire Ant; Johne's Disease; Low Pathogenic Avian Influenza; Noxious Weeds; Pink Bollworm; Plum Pox; Pseudorabies; Scrapie; Tuberculosis; Wildlife Services Operations; and Witchweed.

USDA's Scientific and Technical Services Programs provide new tools and technologies to protect the health

of American animal and plant resources. These programs provide diagnostic services, products and training for surveillance, prevention and control and eradication programs. They facilitate, monitor and regulate the development of biotechnology-derived products. They ensure the purity, potency, safety and effectiveness of veterinary biological products. They develop methods to control animals and pests detrimental to agriculture, wildlife, and public safety. The programs in this grouping include Biosecurity, Biotechnology Regulatory Services, Environmental Compliance, Plant Methods, Veterinary Biologics, Veterinary Diagnostics, and Wildlife Services Methods.

USDA's programs that endeavor to reduce the number and severity of pest and disease outbreaks contribute to a secure agricultural production system and healthy food supply. These programs benefit the public by providing abundant food and fiber, good personal health, freedom from zoonotic and nutritional diseases, jobs in the agricultural and related sectors, industries that receive agricultural products and convert and sell them, freely moving agricultural products in the international market place, protection of their herds, flocks, pets, crops, landholdings, parks and natural areas from invasive species, and an opportunity to enjoy a safe, beautiful and sustainable ecosystem.

As indicators of success in reducing the number and severity of pest and disease outbreaks, USDA has selected two key performance measures of broad scope.

The Animal Health Monitoring and Surveillance (AHMS) program uses performance measure 4.2.2, seen in the accompanying exhibit, to track its progress. This program's goals are to conduct monitoring and surveillance activities to rapidly detect incursions of foreign and emerging diseases, evaluate and enhance surveillance for current disease control and eradication programs, monitor domestic and foreign disease trends and threats, and provide timely and accurate animal health information.

Some of its components are the National Animal Health Surveillance System (NAHSS), the National Animal Identification System (NAIS), the National Animal Health Laboratory Network, and the National Animal Health Monitoring System.

The Emerging Plant Pest (EPP) program has performance measure 4.2.3, seen in the accompanying exhibit. This program's goal is to maintain the ability to respond quickly to any emerging plant pest problem. During FY 2006, the program focused on Citrus Canker, Glassywinged Sharpshooter, Emerald Ash Borer, Asian Longhorned Beetle, and Sudden Oak Death (Phytophthora ramorum.) A performance target was set at 2 of 5 programs to ensure safeguarding of U.S. plant resources.

#### **Analysis of Results**

During FY 2006, USDA met the target related to animal disease outbreaks because of the successful effort of AHMS program components. This continued a record of five years of success, broken only by the outbreak of *Exotic Newcastle Disease* (see the accompanying exhibit). By meeting these goals, USDA provided for a continually secure agricultural production system and health food supply to consumers, minimized production losses and maintained market viability for U.S. livestock.

NAHSS strives to meet the requirements of the Animal Health Safeguarding Review and Homeland Security Presidential Directive 9 (HSPD-9). HSPD-9 establishes a national policy to defend the agriculture and food system against terrorist attacks, major disasters, and other emergencies. During FY 2006, USDA joined with other federal agencies to mount a significant effort to prepare for a potential outbreak of highly pathogenic avian influenza. It concluded an enhanced *bovine spongiform encephalopathy (BSE)* surveillance program and moved to an ongoing *BSE* surveillance program. *Swine pseudorabies* and *brucellosis* surveillance activities did not disclose any infected animals in commercial production swine herds, and significant progress was made in implementing the classical swine fever plan.

Exhibit 47: Strengthen the Effectiveness of Pest and Disease Surveillance and Detection Systems

	Fiscal Year 2006		
Annual Performance Goals and Indicators	Target	Actual	Result
4.2.2 Number of significant introductions of foreign animal diseases and pests that spread beyond the original area of introduction and cause severe economic or environmental damage, or damage to the health of animals	0	0	Met
4.2.3 Number of emerging plant pest (EPP) programs where an outbreak has not been contained within the quarantine area	2 of 5 programs	3 of 5 programs	Unmet

Exhibit 48: Trends in Strengthening the Effectiveness of Pest and Disease Surveillance and Detection Systems

	Fiscal Year 2006				
Trends	2002	2003	2004	2005	2006
4.2.2 Number of significant introductions of foreign animal diseases and pests that spread beyond the original area of introduction and cause severe economic or environmental damage, or damage to the health of animals	0	0	1	0	0
4.2.3 Number of emerging plant pest (EPP) programs where an outbreak has not been contained within the quarantine area	N/A	4	3	2	3 of 5 programs

During FY 2006, the National Animal Health Laboratory Network continued to increase the capacity of its laboratories to provide a secure communication, reporting and alert system. It also standardized rapid diagnostic techniques and added modern equipment and experienced personnel trained in the detection of emergent, foreign and bioterrorist agents. A new structure was proposed for the National Veterinary Accreditation Program that would establish two categories of accreditation; require that accreditation status be renewed triennially and require that participants receive continuing education to be eligible to renew accreditation credentials. Establishing the threeyear renewal would ensure up-to-date contact information for the Nation's accredited veterinarian population so they could be mobilized in the event of an animal health emergency. NAIS is expected to be a fully operational system in early 2007. Two of the three components, the premises registration and animal identification number management systems, became operational and the integration of private and State animal tracking databases was established. Once implemented, NAIS will permit

USDA to trace diseased animals back to their place of origin, and trace forward the animals the diseased ones are likely to have infected.

USDA failed to meet its target related to the number of emerging plant pest programs. Two emerging plant pest programs were successful in containing pests within the quarantine areas in place at the beginning of FY 2006. These were the programs for Asian Long Horned Beetle and Glassy-Winged Sharpshooter. Three of five emerging plant pest programs had outbreaks that were not contained within their quarantine areas. These were Citrus Canker, Sudden Oak Death (SOD or *Phytophthora ramorum*), and Emerald Ash Borer (EAB).

Expanded spread of citrus canker beyond existing quarantined areas associated with the unprecedented hurricanes of 2004 prompted USDA and Florida to increase their eradication efforts. Unfortunately, Hurricane Wilma, which struck in 2005, offset these actions. Subsequently, a Department study concluded that citrus canker had spread dramatically in Florida. It also

found that additional spread and new detections would continue. This extensive spread prompted the Secretary of Agriculture to declare that the program in Florida would shift from eradication to management as of January 10, 2006. After consulting the State and citrus industry representatives, USDA proposed developing the Citrus Health Response Plan as an alternative to eradication. Since then, the Department has been assembling State and Federal regulators, and scientists in consultation to identify practices to safeguard the U.S. citrus industry and its trading partners from various citrus diseases. It has improved early pest detection by establishing minimum standards for all aspects of citrus production, harvesting and packing.

The U.S. Forest Service and the State of Oregon are working together to eradicate *Phytophthora ramorum*, the causal agent of SOD. A limited outbreak of the disease had struck Current County, Oregon. Overall, the program has reduced the distribution of *P. ramorum* significantly. While an additional area involving 11 square miles has been reported, the overall distribution of the disease has been reduced in Oregon. USDA regulations are directed toward preventing long-distance spread through sciencebased restrictions on articles that serve as pathways for P. ramorum spread. Thus far, these regulations have prevented the establishment of SOD outside the quarantined areas on the West Coast. USDA also is responsible for establishing and implementing the quarantines on counties when P. ramorum is detected in nurseries or the environment.

EAB was detected outside existing quarantine areas in 2006. USDA continues to develop technologies to improve pest detection, response and recovery. While regulations for quarantined areas are designed to prevent long-distance spread of EAB, implementation requires industries to be regulated and the general public to comply with prohibited movement of firewood, nursery stock and listed ash wood products. As survey methods improve and public outreach continues, detection of EAB populations that had gone undetected previously will occur until the true distribution has been defined.

Additional EAB funding is needed and was requested as part of the President's FY 2007 budget proposal.

## Strategic Goal 5: Improve the Nation's Nutrition and Health

USDA made strides in promoting access to a nutritious diet and healthy eating behaviors for everyone in the U.S. Through its leadership of the Federal nutrition-assistance programs, the Department made a healthier diet available for millions of children and low-income families. The Center for Nutrition Policy and Promotion used interactive tools to motivate Americans to make positive dietary behavioral changes. These interactive tools were designed to help consumers establish and maintain healthy diets and lifestyles, consistent with the *Dietary Guidelines for Americans* and the President's HealthierUS initiative. Key accomplishments included:

- Promoting access to the Food Stamp
  Program (FSP). Food stamps help low-income
  families and individuals purchase nutritious, low-cost
  food. FSP is the Nation's largest nutrition assistance
  program serving 26.6 million people monthly in FY
  2006. The program enables eligible participants to
  improve their diets by increasing their foodpurchasing power via benefits redeemable at retail
  grocery stores and farmers markets across the Nation.
- Continuing to ensure that the MyPyramid food guidance system serves the American public as an individualized approach to nutritional well-being and active living. The high number of e-hits to MyPyramid.gov more than 2 billion in FY 2006 continued to show users' interest in personalizing their diet. To date, there are more than 1.5 million registrations to the MyPyramid Tracker, the dietary and physical activity assessment tool. The new MyPyramid for Kids and MiPirámide materials were made available in FY 2006. And an on-line customer satisfaction survey shows that 88 percent of consumers said that the information and interactive tools at MyPyramid.gov prompted them to take action to improve their health.

■ Continuing to ensure that Food Stamp benefits are accurately issued. The National Food Stamp Program payment accuracy rate for FY 2005, the latest year for which data is available, was 94.16 percent, an all-time high and a 34-percent improvement from just 5 years ago. This improvement is a result of strong partnerships with State administering agencies, and program simplifications and policy options provided in the 2002 Farm Bill

In FY 2006, USDA continued to improve the quality of Americans' diet through a nutritionally enhanced food supply, and better knowledge and education to promote healthier food choices. Four of the top 10 causes of death in the U.S. (cardiovascular disease, cancer, stroke and diabetes) are associated with the quality of diets—diets too high in calories, total fat, saturated fat and cholesterol, or too low in fruits and vegetables, whole grains, and fiber. The Nation is experiencing an obesity epidemic resulting from multifaceted causes including a "more is better" mindset, a sedentary lifestyle and the ready availability and choices of fat- and sugar-laden highcalorie foods. Consumers are looking for foods that taste good, offer nutrition and other health benefits, and are convenient to prepare and consume: science-based dietary guidance and promotion can help them integrate these choices into a diet that promotes their long-term health. In FY 2006, USDA pursued national policies and programs to ensure that everyone has access to a healthy diet regardless of income, and that the information is available to support and encourage good nutrition and physical activity choices.

USDA's success in promoting public health through good nutrition and the effectiveness of its nutrition assistance education programs relies heavily on research. The research provides critical knowledge of what we need to eat to stay healthy and how that knowledge can be conveyed to the public in a manner that leads to true changes in our diets. Research also supports the development of new healthy and tasty food products, providing another avenue for helping consumers eat well.

## OBJECTIVE 5.1: IMPROVE ACCESS TO NUTRITIOUS FOOD

#### Overview

USDA's nutrition assistance programs represent the Federal Government's core effort to reduce hunger and improve nutrition across the U.S. These programs aided one in five people in the U.S. during FY 2006. They promote better health for all people in the U.S., support the transition to self-sufficiency for low-income working families and support children's readiness to learn in school. A well-nourished, physically active population is healthier, more productive and better able to fulfill its full potential.

By working in partnership with States, USDA continues to implement effective nutrition assistance programs and deliver program benefits to eligible participants. The programs promote access to a nutritious and adequate diet for those with little income and few resources. For a variety of reasons, many individuals and families eligible to participate in these programs do not. USDA focuses on increasing the rate of participation among people eligible for Food Stamps and expanding access to the School Breakfast Program (SBP), which is not as widely available as the National School Lunch Program.

In 2006, the Department continued to work with States to implement FSP provisions from the Farm Bill of 2002 that provides States with options to simplify the administration of the program. The Department also continued efforts to monitor and track outreach efforts to targeted populations to participate in the program. USDA continued a media campaign to inform low-income people of their potential eligibility. The Department also provided technical assistance, outreach and participation grants and guidance to faith- and community-based organizations to encourage FSP participation.

While SBP provides cash assistance to States to operate breakfast programs in schools and residential child care institutions, many children who could benefit from breakfast at school do not use the program. On an average

school day, while more than 50 million children had access to school lunch and about 30 million children chose to eat a program lunch, but only about 9.8 million children received a school breakfast. USDA promoted SBP by raising awareness of the program's availability with State and civic leaders, and supporting and celebrating National School Breakfast Week.

The Department also continued to serve those eligible for the Special Supplemental Nutrition Program for Women, Infants and Children Program (WIC) who wish to participate within authorized funding levels – about 8.1 million pregnant women, new mothers and their young children in an average month in FY 2006. WIC helps to safeguard the health of low-income women, infants and children up to age 5 who are at nutritional risk. The program provides nutritious foods to supplement diets, information on healthy eating and referrals to health care.

Finally, USDA reached out to a wide range of faith-based and community organizations to deliver program benefits and services, and encourage access to the programs.

### Selected Results in Research, Education and Statistics

By allocating their food budgets in accordance with USDA's Thrifty Food Plan (TFP), low-income U.S. households can meet recommended dietary guidelines. TFP is a national standard for a low-cost nutritious athome diet. A USDA study seeks to determine whether selected types of low-income households allocate their food budgets in accordance with the TFP. The study finds that low-income households as a whole spend about 86 percent of the TFP costs for food at home. While these households spend approximately the TFP amount on cereals and bakery goods (102 percent), they spend only 53 percent of the TFP costs on fruits and vegetables. Simulations for specific types of low-income households indicate that female-headed households with children and married couples with children are least likely to equal the TFP expenditures.

Recently, concerns about the nutritional adequacy of the diets of certain population subgroups have arisen. USDA research provides a comprehensive analysis of the nutrient adequacy of segments of the population at risk of inadequate nutrient intake, excessive intake or dietary imbalances. The analysis is based on the Continuing Survey of Food Intakes by Individuals conducted in 1994-96 and 1998. The segments included adolescent females, older adults, children and adults at risk of overweight, individuals living in food-insufficient households, lowincome individuals and those targeted by and participating in food and nutrition assistance programs. The report adds to a growing literature that uses current, improved knowledge of nutrient requirements and recommended nutrient assessment methods to analyze nutrient intakes. The report indicates:

- Inadequate intake of key micronutrients, especially magnesium, calcium, folate and vitamin E;
- Energy intakes less than recommended energy requirements for adults; and
- Consumption of too much food energy from fat and not enough from carbohydrates; and inadequate intakes of fiber.

Additionally, diet adequacy deteriorates as individuals get older. Children—especially infants and young children—have diets that are more nutritionally adequate than those of adolescents and adults.

Because food stamps are designed to serve as a first-line defense against hunger, it would be ironic if food stamps were connected to America's obesity problem. Though such a connection appeared to exist in the late 1980s and early 1990s, it does not appear to hold today. USDA research finds a weakening relationship between food stamp receipt and weight status using the latest national data. This reversal is most noticeable among women, the group for which differences between participants and non-participants received the most attention and for whom previous research has found the most consistent associations between food stamps and weight. For women, multi-year data show the opposite of what we

would expect to find if food stamps were behind increased obesity. For men, it appears that food stamp participants are catching up weight-wise with non-participants.

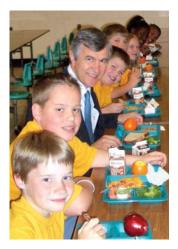
In work funded in part by USDA, the University of California, Riverside has developed technology that doubles the protein and oil content of corn grain. This is accomplished by means of a genetic modification resulting in single normal-sized kernel that contained two embryos. Because the embryo contains the majority of protein and oil of the kernel, the corn grain produced contained less starch, but more protein and oil, resulting in "low-carb" corn.

Apple consumption in the U.S. lags behind that in other countries, despite its known health benefits. Apples are a popular snack, but due to variability, bruising, and softening they do not always provide a consistent product. A breeding program at Cornell University partially supported by CSREES funding has resulted in new apples with non-browning flesh, higher vitamin C, excellent flavors, and superior crunch and juiciness.

Iron deficiency is the most common nutrient deficiency in the United States and is alleviated by iron fortification of food items. Different forms of iron can be used in fortification, but scientists didn't know which form is most beneficial. Researchers at the USDA ARS Grand Forks Human Nutrition Research Center received funding through the CSREES National Research Initiative Competitive Grants Program to resolve this question. The researchers compared an elemental iron powder to ferrous sulfate (FeSO4), a well-absorbed form of iron that can cause discoloration and decreased shelf life in fortified grain products. The investigators determined elemental iron powder was not absorbed into the body as easily as FeSO4 and absorption of the iron powder was less likely to be enhanced by ascorbic acid. This research provides a more comprehensive picture of how iron can be used most effectively in fortified food products.

#### **Challenges for the Future**

Studies and analyses show that there continue to be large numbers of eligible people who do not participate in Federal nutrition assistance programs. While recent changes in FSP have made more low-income people eligible, many may be unaware of the opportunity to receive these benefits. USDA looks to improve access to and promote awareness of these programs among those who may benefit from their services with continued outreach and information strategies.



USDA's ability to achieve this objective depends partly on adequate legislative authority for policies and program initiatives. These initiatives would promote effective access to nutrition assistance and funding to support program participation for all eligible people who seek service. The quality of program delivery by third parties—hundreds of thousands of State and local Government workers and their cooperators—is critical to Department efforts to reduce hunger and improve nutrition. Economic changes can affect both the number of people eligible and the ability of cooperators to provide services.

#### **Key Outcome**

Reduce hunger and improve nutrition

The Department is committed to providing access to nutritious food through the major nutrition assistance programs for all eligible people who wish to participate. Participation has increased in FSP and SBP, and was maintained in WIC.

#### **Analysis of Results**

In general, nutrition assistance program participation reached levels as projected. As program participation is voluntary, participation projections are estimates based on economic and other factors that impact the likely behavior of eligible populations. An analysis of the most recent information available follows.



The Food Stamp Program served approximately 26.6 million participants monthly, a 3-percent increase from FY 2005 and the fourth year in a row of participation increases. USDA executed a range of efforts to support and encourage food stamp participation, including:

- Promoted the use of State policy options that promote outreach and improve access to the program;
- Continued to implement FSP public information campaign. In March 2006, 3 new paid advertisements in English began airing in 49 media markets and on 2 Statewide radio networks across the Nation. Twelve of the markets also aired two new ads in Spanish. Ads aired during March, April, July and August;
- Continued work with the Social Security
  Administration to implement Combined Application

- Projects (CAP) demonstrations, which streamline the eligibility determination process and assist in improving FSP participation among the elderly. Thirteen States have been approved to operate CAP projects, two are reviewing plans and six are planning to submit plans in the next few months;
- Awarded 15 grants to small community and faithbased organizations to conduct localized outreach activities;
- Awarded five participation grants totaling \$5 million to increase access to the FSP. The participation grants focus on efforts to simplify both the application process and eligibility systems and complement the outreach grants; and
- Worked successfully with States to plan and implement 1,600 outreach activities with faith-based and community-based organizations and public agencies.

USDA also conducts studies to measure the number of people eligible for the program to determine the rate at which eligible people are participating. The most recent data indicates that about 23 million of the 38 million individuals who were eligible for food stamp benefits in an average month of 2004 participated, a participation rate of 60 percent. The program provided 71 percent of the total benefits that all eligible individuals could receive, one indicator that people who are eligible for higher benefits are more likely to participate than others. The overall participation rate increased by nearly five percentage points between 2003 and 2004, the third annual increase in participation rates after falling for seven years.

National School Lunch Program (NSLP) participation levels reached 30.1 million in FY 2006, up 1.7 percent from FY 2005 and continuing the trend of increases in recent years. NSLP provides nutritious meals to millions of children at school; more than 95,000 schools operated the program in FY 2006.

School Breakfast Program (SBP) participation levels reached 9.8 million in FY 2006, up 5 percent from a year

ago and continuing a trend of increases during the last several years. SBP makes healthy, nutritious meals available to millions of children at the start of each school day. More than 49,000 schools operated the program in FY 2006. USDA continued to support and encourage SBP participation by:

- Promoting SBP through such activities as School Breakfast Week, which involves schools across America in highlighting the program through events, posters and student activities in the importance of a good breakfast—either at home or served through the program—in being ready for school:
- Working with various organizations and partners to help develop strategies for program expansion;
- Developing school breakfast outreach materials for schools and parents; and
- Continuing to advance the implementation of the Child Nutrition/WIC Reauthorization Act of 2004.

In addition to the increase in the number of participating children, trend data indicate that the proportion of all children enrolled in schools who participate in SBP has risen slowly but steadily in recent years. This use reflects USDA's continuing efforts to encourage schools to operate the program.

In FY 2006, 8.1 million participants received WIC benefits. USDA continued to work with OMB, Congress and its State cooperators to ensure that funding was available to support participation for all those eligible who wish to participate.

USDA recently implemented a new methodology to estimate the number of people eligible to participate in WIC. The most recent data available show that 57.1 percent of eligible women, infants and children participated in the program in 2003, a slight decrease from 2002 but consistent with the rate since 2000.

Exhibit 49: Improve Access to Nutritious Food

		Fiscal Year 2006			
	Annual Performance Goals and Indicators	Target	Actual	Result	
5.1.1	Eligible populations participating in the major Federal nutrition assistance programs				
	<ul> <li>Food Stamp Program Avg. Monthly Participation (millions of people)</li> </ul>	26.9 mil	26.6 <sup>1</sup>		
	<ul> <li>National School Lunch Program Avg. Daily Participation (millions of people)</li> </ul>	30.2	30.1 <sup>2</sup>	Met	
	<ul> <li>School Breakfast Program Avg. Daily Participation (millions of people)</li> </ul>	9.8 mil	9.8		
	<ul> <li>Special Supplemental Nutrition Program for Women, Infants and Children (WIC) Monthly Participation (millions of people)</li> </ul>	8.2 mil	8.1 <sup>3</sup>		

<sup>&</sup>lt;sup>1</sup> Data assessment metrics to meet the target allow for an actual number in the range 24.9 to 28.9 million.

Exhibit 50: Trends in Improving Access to Nutritious Food

	Fiscal Year 2006				
Trends	2002	2003	2004	2005	2006
5.1.1 Food Stamp Program Avg. Monthly Participation (mil)	19.1	21.3	23.9	25.7	26.6
<ul> <li>National School Lunch Program Avg. Daily Participation</li> </ul>	28.0	28.4	29.0	29.6	30.1
<ul><li>School Breakfast Program Avg. Daily Participation (mil)</li></ul>	8.1	8.4	8.9	9.3	9.8

<sup>&</sup>lt;sup>2</sup> Data assessment metrics to meet the target allow for an actual number in the range 28.7 to 31.7 million.

<sup>&</sup>lt;sup>3</sup> Data assessment metrics to meet the target allow for an actual number in the range 8.0 to 8.4 million.

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	Fiscal Year 2006				
Trends	2002	2003	2004	2005	2006
<ul> <li>WIC Program Monthly Participation (mil)</li> </ul>	7.5	7.6	7.9	8.0	8.1

## OBJECTIVE 5.2: PROMOTE HEALTHIER EATING HABITS AND LIFESTYLES

#### Overview

Eating healthfully is vital to reducing the risk of death or disability due to heart disease, certain cancers, diabetes, stroke, osteoporosis and other chronic illnesses. Despite this, a large gap remains between recommended dietary patterns and what people in the U.S. actually eat. The Department uses Federal nutrition policy and nutrition education, both for the general public and for those served by the nutrition assistance programs, to provide scientifically based information about healthful diets and lifestyles. The Department uses, for example, the *Dietary* Guidelines for Americans and MyPyramid to help Americans make wise choices related to food and physical activity. The Guidelines provide advice about food choices that promote health and prevent disease, and MyPyramid provides the educational tools to help Americans take the necessary "Steps to a Healthier You."

Overweight and obesity are among the leading causes of premature death and disability in the U.S. Improved diets can help with weight management and reduce the risk of certain types of cancers, as well as type II diabetes, the most common form of the disease. Thus, USDA's efforts focus on updating nutrition policy, providing information and promoting behavioral changes that can reduce overweight, obesity and other diet-related health conditions. These actions hold the potential to improve the lives of millions of Americans and reduce the social costs of these conditions.

Science has established strong links between diet and health. Researchers attribute about 300,000 premature deaths annually to poor diets. The total costs attributed to overweight and obesity are estimated to be nearly \$120 billion annually. Even small improvements in the average diet would yield large health and economic benefits to individuals and society as a whole.

To this end, the Department will continue promoting healthier eating and lifestyle behaviors as a vital publichealth issue. The Dietary Guidelines for Americans is the cornerstone of Federal nutrition guidance. Using the 2005 Dietary Guidelines and MyPyramid, the educational tool of the Guidelines, USDA will continue its leadership role of providing advice on patterns Americans can follow to improve overall health through proper nutrition and physical activity.

In the same vein, the nutrition assistance programs managed by USDA touch the lives of one in five Americans – an enormous opportunity to promote healthier behaviors. In 2006, the Department maintained its focus on providing benefits to children and lowincome people that contribute to a healthful diet, with skills and motivation to encourage healthy eating and increased physical activity. For example, in the Food Stamp Program, USDA established, with the help of stakeholders, a set of guiding principles that provide the foundation for nutrition education for FSP applicants, recipients and those eligible for the Food Stamp Program. In FY 2006, the Principles were incorporated into guidance for developing State Food Stamp nutrition education plans starting with Fiscal Year 2007.

#### **Challenges for the Future**

USDA's goal of reducing obesity levels begins with understanding what constitutes a healthy diet and the appropriate balance of exercise. Ultimately, success requires individuals to change their diets by modifying their eating behavior. Crafting more effective messages and nutrition education programs to help people make better food choices requires understanding their current choices and the relationships between these choices and their attitudes, knowledge and awareness of diet/health links. Accomplishing this understanding requires data that link behavior and consumption decisions for individuals of various backgrounds, regions, ages and genders. While data exist on a national scale, current survey sample sizes do not yield reliable information for population subgroups.

While updated Federal nutrition guidance is an important step in helping Americans develop and maintain healthier diets and lifestyles, using this guidance to motivate Americans to change remains a formidable task in light of the limited resources available for nutrition promotion. USDA will continue to explore ways to devote significant long-term resources to develop consumer-friendly and cost-effective nutrition education materials, and to make use of partnerships and "information multipliers" to maximize the reach and impact of these materials. Promotional materials will be used both within Federal nutrition-assistance programs and with the general public.

More broadly, attaining performance outcomes in this area depends partly on the emphasis that the Nation places on healthier eating, including products and practices in the food marketplace. Additionally, physical activity and other lifestyle issues significantly affect weight and health.

#### **Key Outcome**

Promote More Healthful Eating and Physical Activity across the Nation

USDA promotes healthful eating through its comprehensive nutrition assistance research and education programs. Efforts are targeted to nutrition assistance program participants and the general public. For each target audience, the challenge is to find effective ways to translate research into working knowledge to understand what people eat, and to find effective strategies to reach target populations with promotional information and messages.

USDA tracks its annual performance in promoting healthful eating and physical activity by monitoring its annual distribution of nutrition education materials. Over the longer term, USDA assesses the effect of these efforts with the Healthy Eating Index (HEI), a summary measure of diet quality developed by USDA's Center for Nutrition Policy and Promotion. The Department sets targets for improvement in the HEI both for the U.S. population as a whole and among people with incomes at or below 130 percent of poverty.

#### **Analysis of Results**

To meet the needs of the general population, USDA continued its leadership role in the promotion of nutrition guidance through educational tools that are designed to

motivate Americans to "Step Up to a Healthier You." Indices of this leadership role include:

- Usage level of nutrition guidance tools was substantial for FY 2006. Nearly 2.2 billion pieces of information were distributed via MyPyramid.gov and printed materials. Visitors to MyPyramid.gov used MyPyramid interactive tools, MyPyramid for Kids and *MiPirámide*. MyPyramid for Kids is a specialized version of MyPyramid designed to promote dietary changes to children 6- to 11-years old, and *MiPirámide*, a Spanish-language version of *MyPyramid*. To date, there are 1.56 million registered users of MyPyramid Tracker¹, the assessment tool for dietary and physical activity status;
- Results from a satisfaction survey<sup>2</sup> of MyPyramid.gov have been positive. Over 6 months, responses by site visitors continued to confirm the usefulness of MyPyramid.gov;
- Overall, the site received a satisfaction score that ranged from 69 to 83. The score was based on site content, functionality, look and feel, navigation, search, and site performance;
- Most survey respondents to the site continued to be general consumers, students, and educators and teachers: 71 to 77 percent;
- Most survey respondents believed the level and depth of the information at MyPyramid.gov met their needs: 64 to 78 percent;
- Most survey respondents said that the information at MyPyramid.gov prompted them to take action regarding their health: 69 to 75 percent; and
- Of those who were prompted to take action, most said they changed their diet or their family's diet, reduced unhealthful eating habits, started monitoring their intake, developed a personalized plan, or established a goal for physical activity: 73 to 85 percent.

Data on the number of registrations to MyPyramid Tracker are cumulative from April 19, 2005; therefore, that information is reported separately.

<sup>&</sup>lt;sup>2</sup> These data are compiled from two surveys conducted between February 2 and May 3, 2006, and two surveys conducted between June 13 and September 25, 2006. The total number of respondents was 2,242.

Exhibit 51: Promoting Healthier Eating Habits and Lifestyles

		Fiscal Year 2006		
	Annual Performance Goals and Indicators	Target	Actual	Result
5.2.1	Application and usage level of nutrition guidance tools pieces* of nutrition guidance distributed	1.5 billion	2.18 billion	Exceeded

<sup>\*</sup>Represents number of e-hits to MyPyramid.gov links and number of print materials distributed

Exhibit 52: Trends to Promote Healthier Eating Habits and Lifestyles

		Fiscal Year 2006					
Trends		2002	2003	2004	2005	2006	
5.2.1	Application and usage level of nutrition guidance tools	N/A*	N/A*	N/A*	1.0 billion	2.2 billion	

<sup>\*</sup>Data was not available when the Annual Performance Plan was published.

Evidence from a range of sources indicates that problems related to diet quality persist, both among low-income people and the general population. USDA's ongoing efforts during this period to promote behavior change, both through the nutrition assistance programs and its nationwide nutrition policy and promotional efforts have been focused on motivating changes to reduce and prevent excessive weight gain and obesity.

#### **Key Outcome**

Increase Nutrition Information Available to the Public

## **Selected Results in Research, Extension and Statistics**

Americans consume a growing proportion of their calories at restaurants and fast food places, although these foods tend to be more calorie-dense and nutritionally poorer than foods prepared at home, on average. However, little is known about how the desire for a healthy diet and diethealth knowledge affect consumer behavior in the fast-growing away-from-home market. Some have even questioned whether consumers want healthful foods or apply their knowledge of health and nutrition, when making choices about where to eat out and how often to do so. This study examines the impact of the desires for

health, entertainment and convenience, along with the consumer's knowledge of health and nutrition, on a consumer's frequency of eating out and the type of restaurants he or she chooses to patronize.

USDA continued development of a comprehensive consumer food consumption database comprised of the Food Consumption (per capita) Data System, food intake data gathered from the National Health and Nutrition Examination Survey (NHANES) and from proprietary datasets. USDA also finalized the development of the Flexible Consumer Behavior Survey (FCBS) in 2006, which will be fielded as a supplement to the NHANES in 2007-2008. USDA acquired three additional food consumption datasets: the 2003-4 NET (National Eating Trends) and CREST (Consumer Reports on Eating Share Trends) data from the NPD group and the AC Nielsen Homescan consumer panel data on packaged and random weight food purchases.

Researchers studied a number of popular diets and found that they have no special effect on metabolism. Four popular diets were tested for effectiveness and adherence in 160 overweight and obese subjects for weight loss over one year by USDA scientists. The diets were characterized as very low carbohydrate, high protein, very low fat, or balanced low calorie. Weight loss was mainly

dependent on dietary compliance and the amount of calorie restriction rather than the type of diet. There was no distinct benefit of high protein or from limiting carbohydrates or fats.

Researchers have discovered a genetic marker for obesity that is consistent across populations. ARS scientists have, for the first time, shown that common mutations of a gene called "perilipin" modulate body weight in humans and more so in women. This genetic predisposition to obesity has been demonstrated in white Americans randomly selected from the general population as well as in Indians and Malays residing in Singapore. Identifying people with a predisposition to obesity will help in the tailoring of appropriate strategies for obesity prevention.

Research indicates that fruit and vegetable consumption lowers risk for metabolic syndrome in young adults. USDA scientists found that low fruit and vegetable consumption and high sweetened beverage intake are independently associated with the prevalence of metabolic syndrome in young adults who participated in the Bogalusa Heart Study. Metabolic syndrome, which is characterized by abdominal obesity and the inability to use insulin efficiently, is believed to be a forerunner of coronary heart disease and type II diabetes.

Smart Bodies is an interactive campaign designed to help prevent childhood obesity that is a joint venture supported partially by USDA funding to Louisiana State University and partially by the Blue Cross and Blue Shield of Louisiana Foundation. The program has been implemented in nearly 100 schools and has reached an estimated 12,000 youngsters. Preliminary results indicate the program is having a positive influence on the children. "One school said they have started ordering more fruits and vegetables for the cafeteria because they started running out after the program was implemented."

## OBJECTIVE 5.3: IMPROVE FOOD PROGRAM MANAGEMENT AND CUSTOMER SERVICE

#### Overview

USDA is committed to ensuring that nutrition-assistance programs serve those in need at the lowest possible costs and with a high level of customer service. Managing Federal funds for nutrition assistance effectively, including prevention of program error and fraud, is a key component of the President's Management Agenda. USDA focused on maintaining strong performance in the food stamp payment-accuracy rate as its key performance goal in this area.

USDA continued to improve management practices by reducing program errors and enhancing customer service. The delivery of food-stamp benefits remains a priority of the Department, as it continues to work with its State agency partners in maintaining a high level of integrity in administering nutrition assistance programs. USDA's continued focus in 2006 on improving nutrition-assistance program management and customer service reflects its long-term core commitment to prevent waste, inefficiency and abuse that diverts taxpayer resources from the core purposes and goals of these programs. The sheer size of these programs demands that the utmost attention be given to applying efficient management practices and, to the extent possible, preventing errors in distributing benefits. Deficiencies in customer service undermine the effectiveness of the programs in reaching clients with the benefits they need. Maintaining public trust in Federal nutrition-assistance programs is vital to their success and continued support.

## Selected Results in Research, Extension and Statistics

Evidence is strong that, beginning in 1995, an increase in reported certification-related costs per Food Stamp Program (FSP) household contributed to reduced error rates. Recent research studied trends in FSP administrative costs and errors from 1989 to 2001, describing the trends and composition of FSP administrative costs. The results imply that, in the period

after the Personal Responsibility and Work Opportunity Reconciliation Act of 1996, States on average had to spend more effort on certification-related activities than in previous years to achieve a given level of accuracy. Research results predict that, if a State's FSP certification budget is fixed and the number of FSP households increase, the effort per FSP household will fall and error rates will rise, if all other things are equal.

Over half of all infant formula sold in the United States is purchased through the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). Typically, State WIC agencies obtain substantial discounts in the form of rebates from infant formula manufacturers for each can of formula purchased through the program. However, concern has been raised that the cost to the States of providing infant formula to WIC participants is increasing, a result that if sustained, could have far-reaching negative implications for the WIC program. This study found that the cost of providing infant formula to WIC participants has increased in recent years. This increase in costs coincides with the introduction of higher priced DHA- and ARAsupplemented infant formulas. Conditions may change after the market adjusts to these new formulas.

The South Carolina Food Stamp and Well-being Studies examine patterns of Food Stamp Program use and other types of in-kind assistance among current and former welfare recipients in South Carolina and the role that noncash assistance plays in maintaining families' well-being as they transition off of welfare. People who receive public assistance confront a number of "clocks" that may affect program participation. Examples of clocks include time limits on receiving benefits and recurring deadlines for reconfirming eligibility. This report examines the role of program clocks, economic conditions, and other circumstances on participation in South Carolina's cash and food assistance programs. The study shows that South Carolina's 2-year time limit in receiving TANF benefits in any 10-year period hastens exits from and reduces returns to the program and that the State's policy of quarterly recertifications hastened exits from the FSP. In

addition, annual redeterminations may contribute to TANF exits. Finding employment speeds exits from the FSP and cash assistance and delays returns to the programs. Cash assistance participation may lead to longer spells of receiving food stamps.

Another report—South Carolina Food Stamp and Well-Being Study: Transitions in Food Stamp Participation and Employment Among Adult-Only Households—focused on adult-only households. Several recent changes in the Food Stamp Program have been directed at households without children. Some of the changes, such as new work requirements and time limits for able-bodied adults without dependents (ABAWDs), are intended to encourage economic self-sufficiency and to reduce program dependence. Other changes are intended to raise low program participation rates among vulnerable groups. The study shows that households subject to ABAWD policies had shorter spells of food stamp participation, longer spells of food stamp nonparticipation, and higher rates of employment than did households not subject to the policies. In addition, adult-only households were much more likely to leave the FSP at recertification time than at other times. Finding employment hastened exits from the Food Stamp Program and delayed returns.

#### **Challenges for the Future**

Some improper payment risks are inherent to the legislatively mandated program structure. The nutrition assistance structure is intended to serve people in special circumstances and settings. USDA must shape its management approach in light of the need to make services convenient and accessible to participants. Additionally, State and local Governments bear direct responsibility for delivering the programs. Thus, the Department must work with State and local personnel to address improper payment problems through monitoring and technical assistance. This approach requires adequate numbers of trained staff supported by a modernized information technology infrastructure to ensure full compliance with national program standards and prevents or minimizes error, waste and abuse.

To meet the challenge of continued improvements in FSP payment accuracy, USDA continues to dedicate resources to this area. Significant challenges will impact future success. State budgets have been and will continue to be extremely tight. This could hurt State performance in payment accuracy. USDA will continue to provide technical assistance and support to maintain payment accuracy in the context of this changing environment.

#### **Key Outcome**

Maintain a High Level of Integrity in the Nutrition Assistance Programs

While 2006 data are unavailable, payment accuracy reached a record high in 2005, reflecting strong efforts in this area that have resulted in significant error reductions during the past several years. Even small changes in the food stamp error rate can save millions of dollars.

#### **Analysis of Results**

The FY 2006 Food Stamp Payment Accuracy Rate will become available in June 2007 and will be reported in the *FY 2007 Performance and Accountability Report*.

The FY 2005 Food Stamp Payment Accuracy Rate posted a new high of 94.16 percent, the seventh consecutive year of improvement and a reduction in error of 34 percent from 5 years earlier. Of the total FY 2005 payment error rate of 5.84 percent, 4.53 percentage points represent the over issuance of benefits; the other 1.31 percentage points represent under issuance of benefits. Performance highlights include:

■ Thirty-two State agencies, including Illinois, Pennsylvania, and Texas, achieved a payment error

- rate of less than 6 percent. California, with a payment error rate of 6.38 percent, continued to improve from its FY 2002 error rate of 14.84 percent; and
- Three State agencies in FY 2005 were assessed liabilities totaling an aggregate of \$3.6 million for having excessive error rates for 2 consecutive fiscal years.

USDA efforts such as the Partner Web (an intranet for State Food Stamp agencies) and the National Payment Accuracy Work Group (consisting of representatives from USDA headquarters and regional offices) contributed significantly to this success by making timely and useful payment accuracy-related information and tools available across regions and States. Additionally, the Department continued to use an early detection system to target States that may be experiencing a higher incidence of errors based on preliminary QC data. Actions are then taken by regional offices to address these situations in the individual States.

USDA's close working relationship with its State partners over the last several years, along with program changes to simplify rules and reduce the potential for error, has resulted in consistent increases in the Food Stamp Payment Accuracy rate. One of the most important factors in maintaining improved performance in this area is the need for State partners to continue and renew their leadership commitment to excellence in payment accuracy. To support State improvement, USDA will continue efforts with the National Payment Accuracy Work Group to share best practice methods and strategies. The Department also will continue to resolve quality control liabilities through settlements, which require States to invest in specific program improvements.

Exhibit 53: Increase Efficiency in Food Management

		Fiscal Year 2006			
Annual Performance Goals and Indicators		Target	Actual	Result	
5.3.1	Improve Food Program Management and Customer Service				
	<ul> <li>Increase Food Stamp Payment Accuracy Rate</li> </ul>	93.8%	N/A	Deferred	

Exhibit 54: Trends in Increased Efficiency in Food Management

		Fiscal Year 2006				
	Trends	2002	2003	2004	2005	2006
5.3.1	Increase Food Stamp Payment Accuracy Rate	91.7%	93.4%	94.1%	94.2%*	N/A

<sup>\*</sup>The figure published in the Annual Performance Plan was an estimate and the actual figure was released in June, 2006.

# Strategic Goal 6: Protect and Enhance the Nation's Natural Resource Base and Environment

# OBJECTIVE 6.1: PROTECT WATERSHED HEALTH TO ENSURE CLEAN AND ABUNDANT WATER

#### Overview

While agriculture produces the food and fiber necessary to supply the Nation's needs, much of its processes may affect the quality of water resources under and around agricultural land. For example, tilling the soil and leaving it without plant cover for extended periods of time can accelerate soil erosion. Residues of chemical fertilizers and pesticides may wash off the field into streams or leach through the soil into groundwater. Irrigation can move salt and other dissolved minerals to surface water. Livestock operations produce large amounts of waste which, if not disposed properly, can threaten human health and contribute to excess nutrient problems in streams, rivers, lakes and estuaries. According to the U.S. Environmental Protection Agency, agriculture is considered to be the leading source of pollutants that enter rivers and lakes. When pollutants degrade water quality, ecosystems are degraded and costs are imposed on ecosystems and those who rely on water for drinking, recreational opportunities and economic livelihoods. Individuals, communities and the environment then must bear the consequences and the costs for degraded water quality.

Water resources can be protected by reducing the amount of sediments, nutrients and chemicals originating from agricultural lands. Programs designed to reduce topsoil erosion, monitor nutrients and provide buffers between farmland and water sources can reduce the introduction of pollutants into rivers and lakes significantly. Buffers improve water quality and fish and wildlife populations by intercepting sediment, nitrogen and phosphorus in runoff before these pollutants enter lakes, ponds, wetlands and waterways. The buffers provide shade—thereby cooling streams and rivers—and provide conservation cover and increased wildlife habitats.

USDA conservation experts assisted agricultural producers in planning and applying conservation practices. These practices helped reduce sediment, nutrient and pesticide runoff. They also helped maintain and improve water supplies, restore wetlands and improve fish and wildlife habitat. On private land, USDA assisted people in writing or updating conservation plans for almost 9.9 million acres of working cropland and 23.9 million acres of grazing lands. The Department also helped implement conservation practices on nearly 20 million acres.

The Department also assists State, Tribal and local entities in improving water-resource conservation. Assistance provided to these entities includes advice on drought and flood control management, natural resource data collection and dissemination, and cost-share and technical guidelines. This assistance helps State and local Governments plan and implement conservation practices and mitigate drought and flood impacts.

# **Key Outcome**

Clean and Abundant Water

In 2006, USDA helped producers develop conservation plans for millions of agricultural acres. These plans empowered producers with information on the capability of their soil, condition of their rangeland and woodlands, and requirements for irrigation. They also served as a land-use management tool to support healthy plant, animal and human communities. USDA also provided producers with conservation cost-share benefits and incentive payments. These incentives helped offset the cost of installing conservation covers and riparian and grassland buffers and maintained sound conservation practices while improving the productivity of agricultural lands.

Additionally, USDA provided technical assistance to hundreds of thousands of producers in planning and applying conservation to manage their soil and water resources better. The Department's assistance helped managers of private lands maintain soil quality, protect water and air quality, and enhance wildlife habitats. To reduce the risk of nutrients entering waterways from animal operations, USDA worked with agricultural producers to apply more than 4,400 Conservation Nutrient Management Plans on approximately 7.4 million acres. These activities provide the information and effective tools resource managers need to be good stewards of the Nation's land and water.

USDA efforts to protect the Nation's water supply also affect producers and communities. Farmers, ranchers, private forest owners and other landowners manage two-thirds of the Nation's land. Agricultural irrigation accounts for a third of the water drawn from surface water and groundwater. The Department helps these groups develop environmentally sound management practices. USDA also provides them with information on soil quality, water management and quality, plant materials, resource management and wildlife habitat. Additionally, the Department provides technical and financial

assistance to agricultural producers to promote good stewardship of agricultural and environmentally sensitive lands. Land owners and managers who receive technical assistance and cost-share or incentive payments are more likely to plan, apply and maintain conservation systems that support agricultural production and environmental quality as compatible goals. These programs target land for enrollment precisely where conservation benefits are expected to have the greatest positive effect. USDA's technical experts help people in communities work together to protect their shared environment. The assistance provided to State and local Governmental entities, tribes and private-sector organizations helps them protect the environment and improve the standard of living and quality of life for the people they represent. The funds provided to these communities preserve and protect the environment, which benefits society as a whole.

The environmental benefits of USDA conservation efforts to protect watersheds from agricultural runoff include healthier streams, rivers and lakes. These benefits also lead to improved ecosystems and wildlife habitats. Studies about the benefits of water-pollution reduction suggest that the annual benefits from improving water quality could total tens of billions of dollars. According to a 2003 USDA report on agricultural resources and environmental indicators, water-quality benefits from erosion control on cropland alone could total more than \$4 billion annually. Improved water resources reduce water treatment costs and mean safer drinking water supplies for communities. USDA provided technical and financial assistance to enable producers to use irrigation water on 953,528 acres more efficiently. The Department also helped local communities complete the installation of 149 flood-prevention or mitigation measures.

USDA provided assistance to local groups and Governments to develop almost 900 watershed and areawide plans. These plans address a wide range of water resources concerns. To help address flooding problems, the Department assisted in completing 121 dam-condition assessments and 13 watershed-rehabilitation plans. The

assessments were made to determine the risks associated with aging flood-control structures. The plans also identified feasible strategies for mitigating identified risks.

USDA provided assistance to producers to improve irrigation water management on over 1.1 million acres. The Department assisted in the rehabilitation or removal of 4 dams determined to be at or nearing the end of their 50-year design life. Upgrading and removing these dams eliminated threats to life and property. This move also may have mitigated flood damages, enhanced wetlands and wildlife, and created recreational benefits.

USDA provided financial assistance to individuals and groups to implement structures and management systems. This move improved water management and protected watersheds, including:

- \$512 million for cost-shares and incentives for water conservation and water quality.
- Initiative (CCPI) grants to help partners identify and solve regional, State and local natural resources concerns. CCPI provides funds for watershed or airshed-planning projects. The funds are designed for projects that address terrestrial and freshwater aquatic wildlife habitat, invasive species, livestock nutrient management, minor and specialty crop management, and agricultural air quality. CCPI also supports rapid watershed assessments that will provide watershed assessments quickly to stakeholders and partners. USDA also allocated \$4.1 million in conservation innovation grants to address water quality and other priority natural resource concerns in the Chesapeake Bay Watershed.

Programs such as the Conservation Reserve Program (CRP), a voluntary program available to agricultural producers, protect millions of acres of American topsoil from erosion. CRP safeguards millions of acres of land susceptible to erosion and other environmentally sensitive cropland by placing it in long-term protective cover. Producers enrolled in the program plant long-term,

resource-conserving covers (such as grasses and trees) to improve water quality, control soil erosion and enhance wildlife habitat. In return, USDA provides participants with rental payments and cost-share assistance. Once enrolled, producers enter into 10-to-15-year contracts. Current legislation requires equal consideration for soil erosion, water quality and wildlife concerns. The program addresses these natural resource concerns, providing environmental and economic benefits both on and off the farm. The Department accomplishes this by using environmental benefits indices in general sign-ups and through continuous ones that target primarily improvement of water quality and wildlife. Key benefits of the program include reduced soil erosion, increased wildlife habitat and better protected surface and ground water supplies. Acreage enrolled in the program is planted with resource-conserving vegetative covers. This process makes the program a major contributor to increased wildlife populations in many parts of the country.

CRP has accounted for nearly 40 percent of the annual 1.2 billion tons reduction in soil erosion since 1982. In 2004, CRP reduced nitrogen and phosphorus applications by 683,000 and 113,000 tons, respectively. Reduced soil erosion and fertilizer applications improve water quality. Enrollment of conservation buffers and establishing permanent cover through CRP reduces or eliminates runoff. By reducing water runoff and sedimentation, CRP protects groundwater and helps improve the condition of lakes, rivers, ponds and streams. A study by the Food and Agricultural Policy Research Institute estimated the impact of CRP enrollment on nitrogen, phosphorus and erosion leaving field edge and root zones and showed significant reductions in runoff. These reductions mean that fewer pollutants enter water resources. CRP also addresses the loss of wetlands, grassland and wildlife habitats that has occurred historically as lands were converted to agricultural uses.

Users accessed the National Water and Climate Center Web site millions of times. The site, <a href="http://www.wcc.nrcs.usda.gov/">http://www.wcc.nrcs.usda.gov/</a>, hosts data on snowpack, hydroclimatic and soil moisture, which helps agricultural

producers effectively use limited water supplies for agricultural production. The data also assist Federal, State and local agencies to manage water compacts and treaties, and mitigate drought and flood damages. Officials from municipalities can visit the site for information on operating reservoirs and supporting fish and wildlifemanagement activities associated with species protection. This site also provides data to the scientific community.

USDA developed and released new Web-based tools to help producers manage their operations more efficiently. These tools, which help protect water resources and reduce their energy costs, include:

- Energy Estimator for Tillage Helps farmers and ranchers calculate diesel-fuel use and costs associated with various tillage practices. Key conservation practices include crop-residue management, nutrient management, irrigation-water management, precision agriculture, pesticide management, intensified grazing systems and windbreaks/shelterbelts;
- Energy Estimator for Nitrogen Fertilizer Estimates savings in nitrogen-fertilizer applications and helps farmers and ranchers make practical and sound decisions regarding nitrogen fertilizer use on their farm or ranch; and
- Energy Estimator for Irrigation Helps producers manage their irrigation water resources more efficiently. The tool provides an analysis of current water use, the reduced water use associated with various treatment options and the energy costs and savings of these treatment options based on data entered by the producer.

USDA's Plant Materials Program released 26 plants and published 308 technical documents to protect watershed health. This plant technology is used to:

- Manage and eradicate invasive species;
- Restore and enhance wetlands, grassland and wildlife habitat;
- Control erosion;
- Improve grassland condition;

- Restore stream banks; and
- Mitigate damages resulting from such natural disasters as drought, floods and fires.

# **Challenges for the Future**

External factors present challenges to accomplishing the conservation goals set by USDA. If market prices are favorable, agricultural producers may be enticed into leaving targeted, environmentally sensitive cropland in crop production rather than establishing long-term conservation covers or buffers. High fuel prices affect farmers and ranchers by increasing overhead costs. Landowners may be more reluctant to enroll in new programs, implement new conservation practices or adopt new technologies that could decrease their bottom line. Additionally, natural disasters and prolonged drought conditions may also reduce the effectiveness of USDA's conservation programs.

# **Analysis of Results**

USDA met its FY 2006 targets for helping producers apply comprehensive nutrient management plans (CNMPs), which are systems for animal-feeding operations designed to ensure that wastes and byproducts are collected, stored and disposed of in ways that minimize environmental damage. These actions protect soil and water, and enable agriculture to meet long-term goals for clean water. Comprehensive nutrient management plan targets were set for the Conservation Technical Assistance Program (CTA) and Environmental Quality Incentives Program (EQIP). CNMPs are complex systems that require substantial investment of time and money. The steady increase in the number of CNMPs assisted by EOIP reflects the increases in public investment in conservation authorized by the 2002 Farm Bill. The trend in CNMP work supported by CTA reflects assistance available from non-USDA sources and increasing regulatory pressures. As animal agriculture has become more concentrated, public concern has increased about the potential for damage to the environment. USDA has focused on helping producers comply with State and local regulations and minimize the potential that their

operations might damage water or air resources.

In FY 2006, USDA met its performance targets and made significant progress towards ensuring cleaner water. The Department helped farmers and ranchers create new riparian and grass buffers in agricultural lands. These buffer areas intercept sediment and nutrients before they reach surface waters. The long-term goal for USDA conservation programs is to have a land-management system that maintains a highly productive resource base for future generations while meeting the needs of the present. As one indicator of its performance in reaching this goal, USDA establishes an annual target for acreage of agricultural lands to be enrolled in CRP as buffer zones. The USDA *Strategic Plan for FY 2005-2010* set a strategy of helping producers increase the number of

riparian and grass buffers on agricultural lands. During the past five years, the number of acres set aside as buffer areas under the CRP program has increased steadily. In 2005, USDA exceeded its target of 1.75 million acres set aside as buffer zones, an increase of more than 110,000 acres from the previous year. In FY 2006, also helped producers create conservation plans for their privately owned land. USDA set a target of 1.85 million additional acres set aside for buffer areas and met its targeted number of acres for the year. Cumulative CRP enrollment now stands at 36.7 million acres. These acres have reduced soil erosion by 454 million tons annually, reduced nitrogen, phosphorus and sediment leaving the field by more than 85 percent, and sequestered more than 48 million metric tons of carbon.

Exhibit 55: Healthy Watersheds, High Quality Soils and Sustainable Ecosystems

		Fiscal Year 2006		06
	Annual Performance Goals and Indicators	Target	Actual	Result
6.1.1	Number of Comprehensive Nutrients Management Plans applied			Met
	Conservation Technical Assistance	≈1,909	1900 <sup>1</sup>	
	<ul> <li>Environmental Quality Incentives Program</li> </ul>	≈2,552	2550 <sup>2</sup>	
6.1.2	Increase Conservation Reserve Program (CRP) acres of riparian and grass buffers	1.85 million acres*	1.86 million acres*	Met

Data assessment metrics to meet the target allow for an actual number in the range 1,710 - 2,090.

Exhibit 56: Trends in Application of Comprehensive Nutrient Management Plans

		Fiscal Year Actual					
	Trends	2002	2003	2004	2005	2006	
6.1.1	Number of Comprehensive Nutrient Management Plans applied						
	<ul> <li>Conservation Technical Assistance</li> </ul>	2,292	2,132	2,372	2,420	1900 <sup>1</sup>	
	<ul> <li>Environmental Quality Incentives Program</li> </ul>	956	948	1,055	2,032	2550 <sup>2</sup>	
6.1.2	Increase Conservation Reserve Program (CRP) acres of riparian and grass buffers	1.24 million acres*	1.45 million acres*	1.65 million acres*	1.75 million acres*	1.86 million acres*	

<sup>&</sup>lt;sup>1</sup> Data assessment metrics to meet the target allow for an actual number in the range 1,710 - 2,090.

<sup>&</sup>lt;sup>2</sup> Data assessment metrics to meet the target allow for an actual number in the range 2,250 – 2,750.

<sup>\*</sup> Cumulative

 $<sup>^{2}</sup>$  Data assessment metrics to meet the target allow for an actual number in the range 2,250 - 2,750.

<sup>\*</sup> Cumulative.

# Selected Results in Research, Extension and Statistics

Programs require understanding why producers participate in the programs, what incentives encourage participation and how policies might be designed to encourage participation. Recent USDA research addresses the question regarding program participation. This report examines the business, operator, and household characteristics of farms that have adopted certain conservation-compatible practices, with and without financial assistance from government conservation programs. The analysis finds that attributes of the farm operator and household and characteristics of the farm business are associated with the likelihood that a farmer will adopt certain conservation-compatible practices and the degree to which the farmer participates in conservation programs. For example, operators of small farms and operators not primarily focused on farming are less likely to adopt management-intensive conservationcompatible practices and to participate in working-land conservation programs than operators of large enterprises whose primary occupation is farming.

Voluntary conservation payment programs must specify who is eligible to receive payments, how much can be received, for what action, and the means by which applicants are selected. Achieving program goals in a cost-effective manner hinges on the choices policymakers and program managers make when answering these questions. A set of five Economic Briefs explores specific design options these decision makers face: balancing income support and environmental objectives; whether and how to target programs to improve cost effectiveness and environmental performance; whether and how to use bidding in determining payment levels; balancing land retirement with conservation on working lands; and whether to pay for conservation practices or to link payments to environmental performance.

Low technology biofilters improve water quality by reducing nitrate in drain water from corn fields in the mid-west. Corn production in tile-drained soils leads to high nitrate concentrations in drainage water discharges to streams. USDA scientists demonstrated that a simple biofilter composed of wood chips buried in trenches adjacent to subsurface tiles can remove 60-70 percent of the nitrate from the tile drainage. The systems are easy to install and do not remove land from crop production. Biofilters could be systematically placed within fields and watersheds where contamination is highest.

New prediction technology will help producers and action agencies reduce wind erosion. USDA employees, crop consultants, and others who advise producers have a critical need for software that can predict the impact of management practices on wind erosion. USDA scientists have led in the development of a new advanced wind erosion prediction model known as the wind erosion prediction system (WEPS). The software allows growers to select the right approach to prevent erosion. In addition to predicting erosion, WEPS can also predict emission of the tiny dust particles known as PM10 that may pose risks to human health and the environment.

Researchers partially supported by USDA funds at Iowa State University's Center for Agricultural and Rural Development have developed a method for better assessing the costs and benefits of a range of conservation practices in agriculture to mitigate water pollution. State policymakers need to quantify the contributions of agriculture to the problem and what effect different landuse decisions might have on meeting water quality objectives. Annual costs of conservation practices ranged from about \$300 million to \$320 million, with land setaside and conservation tillage the most costly practices. The environmental effects of different practices varied among the watersheds, with sediment decreases ranging from 6 percent in the Little Sioux River Watershed to 65 percent in the Turkey River Watershed. The results suggest a targeted approach as the most cost-effective, matching a specific watershed to its most effective conservation practice or mix of practices.

The results of a multi-state research project supported by USDA funds indicates that up to 25 percent of agricultural

fields in the North-Central region are non-responsive to nitrogen fertilizer applications. They also found that farmers over-fertilized fields with up to 25 to 30 pounds of nitrogen per acre or more. Applying unneeded or excessive fertilizer to fields affects the environment and raises farmers' production costs.

# OBJECTIVE 6.2: ENHANCE SOIL QUALITY TO MAINTAIN PRODUCTIVE WORKING CROPLAND

#### **Overview**



High-quality soils are the foundation of productive croplands, forest lands and grasslands, and a vibrant and productive agriculture. These soils also can filter and hold nutrients, which prevents unwanted materials from entering water resources. Soil quality is affected by management—it can be hurt by poor management or maintained and even improved by good management. Such conservation practices as residue management, cover crops, crop rotations, strip-cropping and irrigation-water management help protect and improve soil condition on cropland. Prescribed grazing and other grazing land practices are important to protecting soil quality on grassland and rangeland.

USDA has set a long-term objective for improving cropland soil condition. The soils most vulnerable to damage are those in such intensive uses as annual

cropping. In 2003, 60 percent of cropland was farmed under systems that maintained or increased soil condition and soil carbon. By 2010, the goal is to increase that number to 70 percent.

USDA helps producers plan and apply conservation practices to enhance soil health. The Department assisted producers to apply conservation practices in plans covering 13.4 million acres of cropland. The most widely applied practices were residue management and conservation crop rotations. These practices protect soil quality by reducing erosion and increasing soil carbon. Soil organic matter improves soil structure and overall capacity to hold water and nutrients.

USDA helps landowners and land users plan and adopt environmentally sound management practices. Land managers who receive the Department's technical assistance are more likely to plan, apply and maintain conservation systems that support agriculture production and environmental quality as compatible goals. Thus, producers can be good stewards of the Nation's resource base. Their good management ensures that the Nation will continue to have a quality soil-resource base. Such a resource base enables the sustained production of a safe, healthy and abundant food supply.

# **Challenges for the Future**

Economics and weather can impact producers' willingness to adopt conservation measures that improve soil condition on cropland. Weakness in the economy and rising energy costs could affect producers' abilities to invest their own funds and their willingness to take any risk associated with changing management. Natural disasters and prolonged unfavorable weather conditions also could reduce the opportunities for producers to implement conservation practices. As it relates to the soil data collection and dissemination, budget and staffing constraints in partnering Federal and State agencies, and universities could reduce the number of acres mapped and the total number of soil surveys updated.

USDA, in cooperation with other Federal, State, Tribal and local agencies, and private organizations, will work to provide producers with information and other resources they need to adopt applicable conservation measures. USDA will face challenges associated with soil data collection and dissemination. The Department will seek to strengthen partnerships and form new ones with entities having common interests. It also will use technology to improve data-collection efficiency.

# **Key Outcome**

Enhanced Soil Quality

High-quality soils support the efficient production of crops for food, fiber and energy. Proper soil management maximizes agricultural production and improves the environment. Intensively used cropland soils are most vulnerable to degradation and damage. By helping producers reduce erosion, minimize compaction and increase soil organic matter, USDA helps producers enhance the quality of cropland soils. The Department assisted producers in making significant gains in protecting soil quality. These moves included:

USDA mapped or updated 35.5 million acres of soils. It also made 126 surveys covering 88 million acres available on the Web at: <a href="http://websoilsurvey.nrcs.usda.gov/app/">http://websoilsurvey.nrcs.usda.gov/app/</a>
<a href="WebSoilSurvey.aspx">WebSoilSurvey.aspx</a>. Soil surveys offer local information on the capabilities and conservation treatment needs of soils within a given region. They provide basic information for conservation planning and represent the foundation to sound land use planning and agricultural production. USDA provides the scientific expertise to enable a uniform system of mapping and assessing soil resources across the Nation.

USDA developed and made new tools available to help producers plan cropland conservation management that improves soil quality and conserves energy. The Energy Estimator Tools for Tillage, Nitrogen, and Irrigation are Web-based tools designed to increase energy awareness in agriculture and to help farmers and ranchers identify

where they can reduce their energy costs. More information on the Energy Estimator Tools can be found at <a href="http://energytools.sc.egov.usda.gov/">http://energytools.sc.egov.usda.gov/</a>.

USDA helped producers develop or update conservation plans covering 10.3 million acres of cropland recorded in its national conservation plan database. Additionally, technical consultations helped land managers with other decisions not recorded as a final plan in the database. To develop plans for good stewardship of soil resources, USDA conservation planners helped land managers work through a structured process to analyze and work with complex natural processes in definable and measurable terms. Conservation plans for individual fields and farms are designed in the context of the larger landscape. They enable the producer to meet economic and environmental goals.

USDA helps producers install conservation practices and systems on their land that meet established technical standards and specifications. The majority of the quantitative performance measures that USDA has established for its conservation programs are for practices implemented. Implementation feeds directly into achieving long-term outcome goals. USDA assisted in applying conservation practices on 13.4 million acres of cropland.

USDA provides financial assistance to encourage producers to adopt land treatment practices proven to provide significant public benefits. Financial assistance for practices applied primarily to address soil quality issues included:

- \$150 million in cost-shares or incentives for adopting structural measures or management practices to reduce erosion and protect cropland; and
- \$ 55 million in stewardship payments to producers who meet or exceed standards for maintaining soil quality.

# **Analysis of Results**

USDA performance is within the range considered as met for its targets for helping producers plan conservation on

cropland. Conservation plans are essential to good management of soil and water resources. A conservation plan describes the schedule of operations and activities needed to solve natural resource problems and take advantage of opportunities. The measure includes only conservation planning supported by the Conservation Technical Assistance (CTA) program. CTA helps individual managers consider their operations within the larger landscape to which a farm or ranch belongs. The program also helps land managers consider the effects of their actions on that wider environment. Managers can avoid actions that would damage natural resources offsite while meeting their economic targets for the operation.

USDA also met its program goals for reducing the acreage of cropland soils damaged by erosion. This measure includes acres on which treatment applied in the fiscal year reduced erosion from a damaging rate to one that does not exceed the "tolerable" rate for the soil. Targets are set only for CTA and the Environmental Quality Incentives Program (EQIP). CTA provides assistance for the most widely-used, economically feasible practices such as residue management. EQIP provides cost shares for capital-intensive practices needed to solve difficult problems on environmentally sensitive

land or comply with local or State regulations. Small acreages also are protected through other programs. Because conservation plans and practices may be applied with assistance from more than one program, some acres reported for one program also may be included in those reported for another program.

The progress against erosion damage is considered the best indicator of accomplishments that link directly to the long-term objective of increasing the acreage under soilenhancing management. This measure does not include all cropland where USDA provided needed assistance. Farming is dynamic because producers frequently change crops, equipment and management practices. Thus, they need help in adjusting conservation systems even on land well protected through the previous system. The Department helped producers apply conservation practices in plans covering 13.4 million acres of cropland. The most widely applied practices were residue management and conservation crop rotations. These practices protect soil quality by reducing erosion and increasing soil carbon. Soil organic matter improves soil structure and overall capacity to hold water and nutrients. The majority of this basic soil protection was planned and applied with assistance through CTA.

Exhibit 57: Enhanced Soil Quality

		Fiscal Year 2006		
	Annual Performance Goals and Indicators		Actual	Result
6.2.1	Conservation plans for cropland written, million acres	11	10.3 <sup>1</sup>	Met
6.2.2	Reduction in acreage of cropland soils damaged by erosion, millions of acres			Met
	Conservation Technical Assistance Program	3.0	3.9	
	Environmental Quality Incentives Program	1.5	1.7	

<sup>&</sup>lt;sup>1</sup> Data assessment metrics to meet the target allow for an actual number in the range 9.9 – 12.1.

Exhibit 58: Trends in Soil Quality Protection

		Fiscal Year Actual				
	Trends	2002	2003	2004	2005	2006
6.2.1	Conservation plans for cropland written, millions of acres	5.2	6.3	7.4	8.5	10.3
6.2.2	Reduction in the acreage of cropland soils damaged by erosion, millions of acres					
	Conservation Technical Assistance	3.4	3.3	N/A*	3.9	3.9
	<ul> <li>Environmental Quality Incentives Program</li> </ul>	1.0	1.0	N/A*	1.5	1.7

<sup>\*</sup>Data to report performance at the program level were not captured in the NRCS' Integrated Accountability System in FY 2004; data on total for all programs was captured.

# Selected Results in Research, Extension and Statistics

In response to *Asian Soybean Rust* concerns, USDA included soybean chemical usage data in the Agricultural Chemical Usage Field Crops Summary, May 2006 publication. Soybean data were summarized from the Conservation Effects Assessment Project (CEAP) data set. The data identified six active ingredients approved for soybean rust applied by producers on the 2005 crop, compared with four active ingredients applied to the previous year's soybean crop. From the CEAP data source, only regional chemical usage data were publishable. Soybeans were not a targeted crop on the Agricultural Resources Management Survey (ARMS) which prevented the data from being publishable at the individual State level.

The Agricultural Chemical Usage Field Crops Summary, May 2006 and Agricultural Chemical Usage Fruit Crops Summary, July 2006, for the first time, included data for sulfur used as a nutrient.

USDA's National Agricultural Statistics Service (NASS) created geospatial cropland data layers for Arkansas, Iowa, Illinois, Indiana, Louisiana, Missouri, Mississippi, Nebraska, North Dakota, and Wisconsin covering the 2005 crop year, and the Snake River Plain in Idaho following the final release of NASS' county estimates for these states. Through a cooperative agreement with the Wisconsin Dept of Health and Family Services, NASS re-

released a modified and improved Wisconsin Cropland Data Layer of small acreage and non-agricultural fields. In addition, through a cooperative agreement with Towson University, NASS created a cropland data layer for the 10-state mid-Atlantic region for the 2002 crop year, which was released in January 2006. NASS is also creating a cropland data layer for Florida for the 2004 crop year for release in the fall of 2006. Washington State University, through a cooperative agreement with NASS, is planning to create a cropland data layer for eastern Washington for the 2006 crop year. The malfunction of Landsat 7 in May 2003 has hampered the ability to obtain cloud-free satellite imagery during the growing season. Additionally, Landsat 5 failed twice during the winter of 2005, making NASS look for additional sources of imagery for crop year 2006. However, alternative imagery sources such as GeoEye's ResourceSat-1 AWiFS sensor is being acquired by the Foreign Agricultural Service and NASS for analysis of the 2006 crops for acreage estimation.

Research has demonstrated that no-tillage cropping systems are as beneficial to soils as conservation grassland in sandy, semiarid soils. ARS researchers monitored a suite of critical soil parameters in conservation grasslands, conventionally tilled fields and no-tillage fields. They found that no-tillage production fields maintained soil conditions better than conventional tillage and as favorable as those in the conservation grasslands, indicating that farming with proper practices

can be as beneficial as placing lands in conservation reserve.

Research has established that the use of polyacrylamide to reduce soil erosion has no negative effects on soil ecology. Polyacrylamide (PAM) has been shown to substantially reduce soil erosion, but some have expressed concern that its widespread use might have deleterious effects on soil organisms. ARS scientists tested this concern by applying PAM at a rate of 1 ton per acre, much higher than the normal rate of 10 to 20 pounds per acre. They monitored soil properties and conducted microbiological analyses for six years and found almost no difference in soil microbial activity despite the massive application rates. This demonstrates that there is no basis for concern about the effects of PAM on soil biota.

# OBJECTIVE 6.3: PROTECT FORESTS AND GRASSLANDS

#### Overview



USDA and the U.S. Department of the Interior (DOI) are using tools and authorities provided by the President's Healthy Forests Initiative and the Healthy Forests Restoration Act of 2003 (HFRA) to expedite planning and implementation of projects to reduce fire hazards and restore forests and grasslands. HFI was launched in 2002 to reduce administrative process delays. HFRA provides improved statutory processes for hazardous fuel reduction projects and also provides other authorities and direction

to help reduce hazardous fuel and restore healthy forest and rangeland conditions on lands of all ownerships. The USDA-DOI projects largely consist of removing excess vegetation and prescribed burning (collectively, hazardous fuel reduction) to reduce the risk from wildfires. In 2006, these wildfires burned more than 1.85 million acres. The integration and alignment of the hazardous fuels reduction program with other restoration programs and the overall increase in hazardous fuel treatment is expedited by HFRA authorities and USDA leadership. The Department will continue to protect the Nation's communities and natural resources by treating hazardous fuel and suppressing wildland fires.

USDA is protecting the National Forests and Grasslands by implementing HFI and HFRA through collaboration among federal, State, tribal, and local governments, and non-governmental organizations. The Department is working with communities to develop Community Wildfire Protection Plans (CWPP). CWPPs identify wildland fire hazards in areas within and surrounding communities and identify high-priority work for the Forest Service. USDA's State and local partners are leading this process, with active participation and technical assistance from USDA. Additionally, the Department is working to integrate vegetation management programs internally to achieve restoration goals. This effort will increase efficiency throughout the Department. USDA has been an active participant in Cooperative Conservation, promoting full partnership in the conservation of environmental and natural resources with States, local governments, tribes and individuals. The Department has updated the 10-year Comprehensive Strategy Implementation Plan, in cooperation with DOI, State and local governments, and non-governmental partners. This plan identifies a collaborative approach for reducing wildland fire risks to communities and the environment. Goals established in the original 10-Year Comprehensive Strategy Implementation Plan were met in fiscal year 2006, just five years after the establishment of the National Fire Plan.

Other 2006 accomplishments in addressing hazardous fuel conditions include:

- Receiving an "Adequate" rating from Office of Management and Budget's Performance Assessment Rating Tool for the Wildland Fire Management Program, an improvement over the 2002 rating of "Results not Demonstrated";
- Developing new fire and fuels performance measures to more effectively measure the impact of treatments on the landscape;
- Investing over 70 percent of the dollars available for hazardous fuel treatments in the wildland urban interface near communities;
- Continuing development of LANDFIRE, an interagency landscape-scale fire, ecosystem, and vegetation-mapping project. The information provided in LANDFIRE will help land managers make informed decisions for treatments to reduce wildland fire risks across landscapes;
- Removing forest debris from Hurricanes Katrina and Rita on more than 115,000 acres of National Forests in Louisiana, Mississippi and Texas;
- Increasing wildland fire use (allowing natural ignitions to burn to meet resource objectives in areas designated in Fire Management Plans if they meet predetermined conditions) on over 172,500 acres in 2006; and
- Developing a new Hazardous Fuel Prioritization and Allocation System to help USDA managers identify and display national priorities geographically. This system incorporates Geographic Information System data across a wide range of emphasis areas, from wildfire potential to threatened and endangered species at risk from catastrophic wildfires.

Hazardous fuel-reduction treatments help protect life and property by reducing the intensity of wildland fires.

The FY 2006 fire season was considered above average, with 1,842,395 acres of National Forest Systems lands burned. Wildfires consumed more than 9.4 million acres

nationally across all land ownerships. There were 14 wildfires that burned more than 100,000 acres each by the end of the fiscal year. Major fires include the Black Mountain, Sawtooth, and Rattlesnake complexes. This ongoing trend of costly and damaging wildfire seasons indicates that the USDA, along with all other landmanagement agencies, must increase efforts to reduce fire hazards using hazardous fuel reduction activities. Removal of excess vegetation decreases fire hazards while also improving firefighter and public safety. In 2006, USDA treated more than 2.4 million acres to remove excess vegetation. Approximately 1.4 million of these acres were treated specifically to reduce hazardous fuels. On an additional 1,102,293 acres, hazardous fuel levels were reduced through restoration and rehabilitation treatments of other programs (i.e., wildlife habitat, watershed, timber and pest management). USDA also used wildland fire use to achieve management objectives on more than 172,579 acres when naturally ignited fires met management prescriptions. To improve upon this level of accomplishment in 2007 and reduce the risk of future catastrophic wildland fires, USDA must use available resources to work collaboratively with all Federal, State, tribal and local entities.

Non-Federal lands in forest and grassland ecosystems make up almost one-half of the area of the continental U.S. Active, science-based management of vegetation ensures the health of the soil, water and wildlife resources of these ecosystems. The primary threats to the health of forest and grassland ecosystems are wildfire, invasive species, fragmentation and unmanaged outdoor recreation.

On non-Federal land, USDA provides technical and financial assistance to help forest and grazing land managers plan and apply conservation practices that reduce threats to resource condition. The Department helps land managers apply conservation practices on over 27 million acres of privately managed grazing lands and forest lands. Conservation practices applied with USDA assistance include prescribed grazing, integrated pest management, brush management, forest stand improvement and tree planting. These practices, alone and

in combination with one another, provide food, cover and shelter for livestock and wildlife. They also improve animal health and productivity, maintain water quality and quantity, and reduce erosion.

Byproducts removed during hazardous fuels reduction and landscape restoration activities are often utilized in certain forest products (e.g., timber, engineered lumber, paper and pulp, furniture) and bio-energy and bio-based products (e.g., plastics, ethanol and diesel). In 2006, USDA treated 380,000 acres mechanically; of these, 41 percent have included some sort of biomass utilization. This biomass use contributes to economic diversification of resource-dependent communities and reduces the Nation's dependency on international oil. A strategy to improve our ability to support use by community enterprises of the byproducts of fuel reduction and forest restoration for bio-energy or bio-based products has been proposed by the woody biomass utilization team, including a list of action items relative to stable supply, research and development, and partnerships with communities, stakeholders and other agencies.

As more communities develop CWPPs, there is greater opportunity for private citizens to engage in the management of public lands in a collaborative and productive manner. For many, the experience provides greater understanding of the role fire plays in ecosystem health, a chance to interact positively with federal land managers, and business opportunities.

Healthy, vigorous plant communities on rangeland, native and naturalized pasture, and forest lands protect soil quality, prevent soil erosion and provide sustainable forage and cover for livestock and wildlife. Such land also provides fiber, improves water quality, provides diverse habitat for wildlife and removes carbon. Sustaining healthy grassland, rangeland and forest ecosystems is achieved by focusing on interacting relationships between plant and animal species within a given ecosystem, and their relationship to the physical features and processes of their environment. USDA provides data and technical and financial assistance to those interested in creating,

restoring, protecting and enhancing grassland, rangeland and forest lands. Technical assistance and tools are available to prevent problems and maintain good conditions.

# **Challenges for the Future**



Future challenges include ensuring public and firefighter safety while protecting public lands and assets still threatened by fire in forests dense with ever-increasing vegetation and fuel. Additional challenges are the continued drought conditions throughout much of the Nation and the expansion of communities into previously uninhabited wildlands. This expansion makes up what is known as the wildland urban interface. The historical trend is for increasing impact from wildland fire. As drought continues and communities expand into forested areas, the potential increases for even more deadly and damaging fires. Another challenge is the cost of containing wildfires.

The 2002 coarse scale assessment of wildland fuels determined that approximately 56 percent of all acres managed by USDA have missed 2 or more expected fire cycles and are at elevated risk from wildland fire. The finer scale data available from LANDFIRE is expected to show an even greater departure from expected conditions in the Nation's forests and woodlands. Commercial utilization of excess vegetation has been identified as one way to lower the cost of government forest fuel-reduction

and restoration treatments. A barrier to expanding forest biomass utilization is the limited market for this material because of reduced forest products processing capacity in many Western States. Much of this material is small diameter and non-traditional species. This factor presents a further barrier to utilization where forest products processing capacity remains. Title II of HFRA authorizes measures to further commercial use of biomass. A significant challenge for USDA and DOI is to expand the acreage of hazardous fuel and restoration treatments with available funding by increasing the commercial utilization of hazardous fuel. The Departments are developing a strategy to encourage greater biomass utilization, including as a domestic source of energy.

With regard to private land, producers' willingness and ability to implement the conservation measures that would achieve this outcome are affected by economic conditions, drought and invasive species. Much of USDA's activities on private forestland and rangeland are taken in cooperation with State agencies. Thus, State-level budget constraints that limited the assistance available from State programs would hamper USDA efforts to meet the goal for non-Federal grazing land.

Both forest and grasslands are subject to land fragmentation pressures. Private forest land is the major source of newly developed acres. Increasing fragmentation of forest and grassland landscapes will increase the risk of invasive species and wildfires. It also may threaten the overall health of forest and grassland ecosystems. To minimize problems, USDA will make more information and better planning tools available to local communities. This assistance will help them plan comprehensively for growth and resource protection.

USDA, in cooperation with other Federal, State, Tribal and local agencies and private organizations, will work to provide producers with information and other resources they need to adopt applicable conservation measures.

Protecting communities and restoring forests and grasslands involves the integration of several key USDA programs that manage vegetation. The hazardous fuel

reduction program is a key piece of this effort, along with treatments to improve timber and range productivity, wildlife habitat, forest health, and watershed quality. USDA and DOI are working together to implement a seven-step framework for the Strategic Placement of Treatments (SPOTS). This approach to designing treatment patterns at landscape scales specifically to reduce fire size and severity and alter problem fire behavior while also benefiting other resources is a way to leverage funds and align multiple management objectives into a single plan for interventions tailored to site-specific needs and challenges. SPOTS approaches will support and increase the Department's ability to protect communities and resources through active management of forests and rangelands.

# **Key Outcome**

Sustainable Forest and Grassland Ecosystems

# **Selected Results in Research, Extension and Statistics**

There are continuing needs for new information to aid managers in the protection of the Nation's forests and grasslands. USDA conducted scientific research, developed science-based management tools, and engaged managers to bring new science into practice. A sampling of the accomplishments includes:

- Fundamental and applied research was initiated to improve fire behavior prediction models for wildlands and the wildland urban interface. This work is being advanced in collaboration with partners from national laboratories and universities in order to better understand combustion processes in our wildlands and in intermixed vegetation and structures in the wildland urban interface. The work will aid in fire risk assessment, fire suppression activities, and improved information that private citizens can use to protect their property;
- USDA research personnel supported on-going fires in real time. A combination of personnel on-site at

wildland fires and supporting scientists and technicians working from their home offices supplied state-of-the-art predictions of fire spread and economic impacts. Information from these efforts was used to brief local officials and incident management teams for fires in Arizona, California, Minnesota and Washington.

- Working with headquarters Fire and Aviation personnel, USDA refined estimates of seasonal wildland fire expenditures. Produced every two weeks through the fire season, these estimates comprised a primary information source for assessing budget impacts of wildland fire suppression activities; and
- The frequent occurrence of extensive, severe fires in recent years has elevated concern about what may happen in the future given the uncertainty of future climate and the related changes in vegetation and fire activity. USDA projections of future vegetation and fire patterns for the continental U.S. show higher levels of burned areas in all scenarios evaluated. Work continues to refine models as our understanding of climate change advances.

The Oregon State University Extension Service, partially supported with USDA funding, delivers forest land management education and information to the state's 166,000 non-industrial private forest landowners via the Master Woodland Manager (MWM) Volunteer Program. A collaborative effort between Extension, Oregon Department of Forestry, and the Natural Resources Conservation Service, volunteers visit neighboring landowners to identify opportunities for improving woodland stewardship. According to a survey of 80 forestland clients, 151 forest improvement projects were initiated as a result of MWM visits.

Research has established that properly managed livestock grazing can improve biodiversity in the Great Plains. Livestock grazing on rangelands has come under attack because grazing is believed to reduce plant biodiversity, adversely affecting environmental quality. Because of the lack of scientific information on how to manage grazing

to meet biodiversity goals, USDA scientists have conducted long-term studies of plant composition under various livestock stocking rates. In both locations, moderate levels of livestock grazing resulted in the same or higher levels of biodiversity as ungrazed areas. In Montana, non-native plants were found in higher numbers in the ungrazed areas. Therefore, excluding livestock grazing on northern Great Plains rangelands is not the best strategy for improving and maintaining biodiversity and ecological health.

Research has demonstrated that no-till seeding can increase pasture productivity while reducing input costs. The economic competitiveness of American agriculture, particularly for limited-resource farmers, depends on doing more with less. In the southern Great Plains, feeding hay over the entire winter can cost limitedresource farmers as much as a third of farm income. USDA and university scientists evaluated no-till options for seeding cool-season forages into dormant warmseason pastures as an alternative to feeding hay or planting winter forages using conventional tillage. They found that no-till seeding of annual ryegrass increased annual pasture production by 19 percent and if the forage legume, Korean lespedeza, was added to the mix, forage production increased by 37 percent. The no-till pastures exceeded conventional tillage for overall production. The combination of reduced hay feeding, using legumes as a nitrogen source and less expensive no-till cultivation, reduced costs significantly.

To help achieve the targets for non-Federal forestland and grazing lands, USDA provided a portfolio of products and services, including:

Consultation—USDA helped producers develop or update conservation plans covering 22.8 million acres of grazing lands recorded in its national conservation plan database. Technical consultations also helped land managers with other decisions not recorded as a final plan in the database. The Department provided advice and expertise to help landowners, Tribes, communities and Federal land management agencies

develop plans to achieve goals across landscapes that are a mosaic of land in many types of ownership.

- Conservation Implementation—USDA assisted in applying conservation practices on nearly 26.5 million acres of non-Federal grazing lands. These lands included rangeland, pastureland, grazed forest and native pasture. Through its programs, the Department also assisted on 550,000 acres of private, non-industrial forestland.
- Financial Assistance—USDA provides financial assistance to encourage producers to adopt land treatment practices proven to provide significant public benefits. Financial assistance for practices applied primarily to protect and enhance grazing land and forestland included:
  - \$113 million in cost-shares or incentives for adoption of structural measures or management practices.
  - \$15 million in easements to protect grassland ecosystems and ranching operations.
  - \$4 million in grants through the Grazing Lands Conservation Initiative (GLCI) for proposals to control and manage invasive species affecting grazing lands. GLCI, a partnership of individuals and organizations, maintains and improves the management, productivity and health of the Nation's privately owned grazing land.

# **Analysis of Results**

USDA fell short of its 2006 performance goals for protecting the health of the Nation's forests and grasslands against the risk of fire. The damage caused by Hurricanes Katrina and Rita limited USDA ability to use prescribed fire as a treatment tool in affected areas. As a result, resources were dedicated to removing the hazardous material left in the wake of these devastating hurricanes through mechanical means. The Department treated more than 115,000 acres of National Forest System land in Mississippi and Texas, providing raw material for economic recovery and building materials to the region. While mechanical treatment is of great benefit

to communities, the cost of conducting these treatments compared to the cost of treatment through prescribed fire severely limited accomplishment of established goals. The Department met or exceeded fuel reduction performance goals throughout the remainder of the country.

These increased efforts have significant value to all Americans. They protect human life and whole communities that reside in areas adjacent to national forests and other public lands. USDA is increasing emphasis on the contribution of all vegetation management programs toward the restoration of fire-adapted ecosystems and reducing the threat of catastrophic fire. Activities to restore forest health, wildlife habitat, watershed condition, and timber and range productivity in fire-adapted ecosystems contributed over 1.3 million acres toward these goals in FY 2006.



USDA tracked hazardous fuel treatment with a single performance measure for all treatment activities prior to FY 2001 and initiation of the National Fire Plan. In FY 2003, an additional performance measure based on fire regime condition class was established to track treatment on forests more susceptible to catastrophic wildland fire because of excess vegetation resulting from fire exclusion. Performance since FY 2004 includes the contribution of improved Condition Class resulting from resource restoration activities and direct hazardous fuel reduction treatments.

USDA exceeded its target for assisting in planning the protection of non-Federal grazing land. Conservation plans are the essential tool enabling producers to meet their economic and environmental goals. Department technical assistance for planning enables resource managers to focus on the natural systems and ecological processes that maintain the natural resource base. This comprehensive approach considers all of the aspects of a site and sees the site as a part of a larger landscape. This approach is essential to the sustainable, productive use of natural resources. These comprehensive plans are the framework within which more specific designs for individual practices can be developed. The acreage of grazing land plans developed each year has been increasing as USDA offers more assistance for it. Rangeland managers in many States have requested advice and assistance in protecting land against drought and mitigating damages caused by drought. Comprehensive planning assistance is available primarily through CTA.

USDA also met its target for assisting in the application of conservation practices on non-Federal grazing land. In 2000, an estimated 288 million acres of non-Federal grazing land were in minimal or degrading vegetative condition. USDA's long-term goal is to reduce that by 100 million acres by 2010. The measure of acres of grazing land treated is an indicator of progress toward the goal of improved condition. The acreage treated annually is a surrogate used to indicate progress toward the long-term goal of improved condition. A surrogate annual measure is needed because improvement in condition resulting from program action generally occurs slowly

over time. The moisture available to support plant growth is limited in rangeland ecosystems. The measure includes all land on which producers applied a conservation practice in the fiscal year with USDA technical or financial assistance. The conservation applied includes a wide range of practices tailored to the resource conditions and producer's operation and goals on the specific site. The conservation practices applied help protect the resource base against on-site damage and prevent that to off-site soil, water and air. High priority was given to activities to achieve the reduction of non-point source pollution in impaired watersheds, those of emissions to meet ambient air quality standards, a lower soil erosion from unacceptable levels and the promotion of habitat for at-risk species. The Environmental Quality Incentives Program provided financial and technical assistance in implementing capital-intensive measures. CTA provided assistance for measures that producers financed entirely with their own funds or with assistance from non-USDA sources.

To increase the effectiveness of its ongoing efforts to help people protect and enhance plant and animal communities, USDA is working to improve the technology for measuring conditions. The Department also is projecting the results of management options on grazing lands. Activities include accelerating the development of methodologies to measure and monitor grazing land health, developing plants with a natural resistance to pests and working with partners to address grazing land health, including efforts to control invasive species.

Exhibit 59: Hazardous Fuel Reduction

		Fiscal Year 2006		
	Annual Performance Goals and Indicators	Target	Actual	Result
6.3.1	Number of acres of hazardous fuel treated that are in the wildland urban interface	1,383,000	1,084,615	Unmet
6.3.2	Number of acres of hazardous fuel treated that are in condition Classes 2 or 3 in Fire Regimes I, II, or III outside the wildland-urban interface	235,000	124,183	Unmet
6.3.3	Number of acres of other hazardous fuel treated that are outside the wildland-urban interface	982,000	1,385,611	Exceeded

Exhibit 60: Trends in Treatment of Hazardous Fuel

		Fiscal Year Actual (thousand acres)				
	Trends	2002	2003	2004	2005	2006
6.3.1	Number of acres of hazardous fuel treated that are in the wildland urban interface	764	1,114	1,712	1,649	1,241
6.3.2	Number of acres of hazardous fuel treated that are in condition Classes 2 or 3 in Fire Regimes I, II, or III outside the wildland-urban interface	N/A	293	619	480	124
6.3.3	Number of acres of other hazardous fuel treated that are outside the wildland-urban interface	N/A	N/A	274	592	1,385

**Exhibit 61:** Sustainable Forests and Grasslands

		Fiscal Year 2006		
	Annual Performance Goals and Indicators	Target	Actual	Result
6.3.4	Conservation plans written for grazing land (millions of acres)	18.0	22.8	Exceeded
6.3.5	Grazing lands with conservation applied to protect the resource base and environment, Conservation Technical Assistance, millions of acres	9.0	12.0	Exceeded
6.3.6	Grazing lands with conservation applied to protect the resource base and environment, Environmental Quality Incentives Program, millions of acres	10.0	13.6	Exceeded

Exhibit 62: Trends in Protection of Non-federal Forests and Grasslands

		Fiscal Year Actual				
	Trends	2002	2003	2004	2005	2006
6.3.4	Conservation plans written for grazing lands, millions of acres	8.1	11.7	15.1	19.2	22.8
6.3.5	Grazing lands with conservation applied to protect the resource base and environment, Conservation Technical Assistance, millions of acres	9.0	9.9	9.7	9.9	12.0
6.3.6	Grazing lands with conservation applied to protect the resource base and environment, Environmental Quality Incentives Program, millions of acres	7.7	8.7	8.5	10.3	13.6

# OBJECTIVE 6.4: PROTECT AND ENHANCE WILDLIFE HABITAT TO BENEFIT DESIRED, AT-RISK AND DECLINING SPECIES

#### **Overview**

Protecting the Nation's wildlife requires protecting the interacting relationships between plant and animal species within a given ecosystem. It also requires sustaining the health and vigor of such a system. Protecting specific ecosystems and landscapes — including wetlands, riparian areas, grasslands, floodplains, open water areas

and certain types of forests — can help support wildlife and aquatic species and provide economic and recreational benefits to people. Fragmentation and loss of habitat resulting from urban and suburban development, and intensive agricultural uses have contributed to declines in populations of many terrestrial and aquatic species. Invasive species are second only to habitat destruction as the cause of native species declines. Improving the habitat for declining and at-risk species is key to preventing further declines. It also ensures the

continued survival of those species and the overall health of the ecosystems to which they belong.



USDA's efforts to improve habitat on private lands include providing technical and financial assistance to landowners and managers. This assistance helps them manage working lands and waters to sustain wildlife, aquatic species and plant communities. USDA also acquires and manages easements to improve and restore grassland, rangeland and forest ecosystems, and wetlands and their associated upland buffers. These moves are designed to create productive, diverse and resilient habitat.

USDA assisted individuals and groups to apply management that will maintain or improve habitat on 15.4 million acres of non-Federal land. The land treated included 12.3 million acres of upland wildlife habitat management and 400,000 acres of wetland wildlife habitat management. The Department focuses on improving habitat for at-risk and declining species. USDA provided financial and technical assistance to improve and manage 3.6 million acres to benefit at-risk and declining species. USDA's goal on non-Federal land is to assist in 9 million acres of essential habitat to benefit at-risk and declining species between 2006 and 2010. USDA is supporting efforts to achieve the President's goal to restore, create, enhance and protect 3 million acres of wetlands by 2010. The Department assisted in creating, restoring or enhancing 318,000 wetland acres on nonFederal lands. Its goal is to address 1.5 million acres by 2010.

Fragmentation and loss of habitat have contributed to declines in populations of many terrestrial and aquatic species. Invasive species are second only to habitat destruction as the cause of native species declines. These adverse landscape impacts negatively affect both human and wildlife populations. Loss of habitat means fewer wildlife recreational opportunities for humans, less open space and poorer air and water quality. The development that fragments wildlife habitat can result in a landscape with a greater susceptibility to flooding. The frequency and severity of drought conditions also may increase.

Improving and protecting habitat for at-risk and declining species is key to preventing further declines. It also ensures the continued survival of those species and the overall health of the ecosystems to which they belong. Improving watershed health for wildlife species also improves conditions for humans. Humans will benefit from improved water and air quality, control of invasive species, reduced flood damage, more open space and an increased opportunity for educational and wildlife recreational opportunities. Additionally, keeping wildlife populations healthy and sustainable minimizes the need for regulatory action to protect threatened and endangered species on privately owned land.

# **Challenges for the Future**

The ability of agricultural producers to restore, improve and protect habitat is impacted by their immediate economic situation, market conditions, weather and personal cost/benefit analyses. Weakness in the economy could affect producers' abilities to invest their own funds and their willingness to take any risk associated with changing management. Many wildlife projects are supported by a combination of Federal, State and local funds. State and local budget constraints would impact project implementation.

USDA, in cooperation with other Federal, State, Tribal and local agencies, and private organizations, will work to

provide producers with information and other resources to adopt applicable conservation measures. USDA also will facilitate the development and implementation of landscape-scale habitat protection plans that provide atrisk and declining species access to water, food, shelter and corridors for seasonal migration.

# **Key Outcome**

Improved Wildlife Habitat Quality Supporting Desired Species and Species of Concern (At-Risk and Declining Species)

# **Analysis of Results**

USDA met its target for the creation, restoration or enhancement of wetlands. Targets were set for two USDA programs; Conservation Technical Assistance (CTA) and the Wetlands Reserve Program (WRP). On wetlands where USDA provided technical assistance through CTA, no financial assistance was provided by Department programs. In some cases, financial assistance may have been provided through non-USDA sources.



WRP is a voluntary conservation program that offers landowners the means and opportunity to protect, restore and enhance wetlands on their property. WRP participants sign an easement or agreement with USDA. Some wetlands protection activity is carried out under other USDA programs, including the CRP.

In 2003, there were 111 million wetland acres on non-Federal lands in the continental U.S. In 2004, the President set a national goal to go beyond no net loss – to restore, create, enhance and protect 3 million acres of wetlands by 2010. In support, USDA established a long-term goal of 1.5 million acres created, restored or enhanced by 2010. Reaching the target level established for WRP and CTA will contribute significantly toward meeting the long-term goal. When 2006 results are combined with 2005 results and the projected accomplishments through 2010 (strategic plan period - 2005-2010), these two programs will contribute 89 percent of the total goal.

USDA uses the acreage of wetlands created, restored or enhanced as an indicator of progress toward improved habitat for many species. Acreage is used as an indicator because there is no feasible, widely accepted methodology for documenting the quality of habitat developed or the suitability of the habitat for the target species USDA is participating in cooperative efforts to quantify the results of its conservation practices for wildlife habitat.

# **Selected Results in Research, Extension and Statistics**

USDA opened the Agricultural Wildlife Conservation Center (AWCC) in Madison, Mississippi, to expand efforts to preserve wildlife and wildlife habitat on private lands. The center supports the development of wildlife-habitat technology through a competitive grants program available to many cooperative conservation partners, including fish and wildlife conservation groups, universities and State agencies. AWCC will ensure that new technology is available to farmers and ranchers nationwide through USDA service centers.

USDA helps farmers, ranchers, non-industrial private forest landowners and other natural resource managers consider wildlife when they plan the use of their land. These plans consider wildlife needs for shelter, access to water, food in proper amounts, locations and times to sustain wildlife populations that inhabit the area during a portion of their life cycle.

USDA assists in applying conservation practices to enhance habitat on private lands. Department conservationists provide on-site assistance to producers and other landowners in controlling invasive species, adopting practices to improve grassland or forest habitat, and managing water levels in wetlands to control vegetation. Actions to sustain and enhance aquatic habitat include applying conservation practices that filter potential pollutants and moderate stream temperatures. USDA assisted in applying practices that benefited upland wildlife in plans covering 12.3 million acres. Practices to benefit wetland species were applied in plans covering 400,000 acres.

USDA provided financial assistance to individuals and groups to implement structures and management systems. These moves to improve water management and protect watersheds included:

\$38 million for cost-shares and incentives for habitat protection;

- \$38 million for easements to protect wetlands;
- \$9.5 million for Wetlands Reserve Enhancement Program partnership proposals. These proposals address wetland creation and enhancement efforts on prior-year enrolled contracts, those where cooperators will contribute significantly to the Wetlands Reserve Program (WRP) delivery and technical assistance costs, and easement management projects; and
- \$1.6 million in competitive grants to develop and evaluate technological tools for fish and wildlife habitat improvements. The Agricultural Wildlife Conservation Center will administer the grants.

WRP is a voluntary conservation program that offers landowners the means and opportunity to protect, restore and enhance wetlands on their property.

Exhibit 63: Improved Wildlife Habitat

		Fiscal Year 2006		06
Annual Performance Goals and Indicators		Target	Actual	Result
Wetland	ds created, restored or enhanced, acres			
6.4.1	Conservation Technical Assistance	50,000	65.345	Exceeded
6.4.2	Wetlands Reserve Program	170,000	181,979	Exceeded

Exhibit 64: Trends in Wildlife Habitat Enhancement

		Fiscal Year Actual				
	Trends	2002	2003	2004	2005	2006
Wetland	ds created, restored or enhanced, acres					
6.4.1	Conservation Technical Assistance	63,463	43,525	59,293	53,498	65,345
6.4.2	Wetlands Reserve Program	139,927	137,151	123,363	180,358	181,979

# **Program Assessment Rating Tool (PART) Evaluations**

The Program Assessment Rating Tool (PART) was developed to assess and improve program performance so that the Federal government can achieve better results. The PART reviews of USDA programs help identify a program's strengths and weaknesses to inform funding and management decisions aimed at making the program more effective. The PART therefore looks at all factors that affect and reflect program performance including program purpose and design; performance measurement, evaluations, and strategic planning; program management; and program results. Because the PART includes a consistent series of analytical questions, it allows programs to show improvements over time, and allows comparisons between similar programs.

The summaries below represent programs PARTed in fiscal year 2006, including programs that were reassessed because the programs' previous ratings were unsatisfactory. The programs are summarized by Strategic Objective. Further detail on USDA's PARTed programs can be found at <a href="http://www.whitehouse.gov/omb/budget/fy2006/part.html">http://www.whitehouse.gov/omb/budget/fy2006/part.html</a>.

Strategic Objective 1.1	Expand and Maintain International Export Opportunities
Program Name	Export Enhancement/Dairy Export Incentive Program
Current Rating	Moderately Effective
Lead Agency	Foreign Agricultural Service
Major Findings/ Recommendations	Globally, the export subsidy programs have not been able to demonstrate an ability to permanently expand exports or build U.S. market share in targeted countries. However, the Dairy Export Incentive Program (DEIP) was successful in offsetting European Union export subsidies for dairy products to Mexico which permitted the U.S to develop and sustain a market for U.S. dairy product exports there.
Actions Taken/Planned	These programs have not been operative for several years. However, a policy paper should be developed to lay out the circumstances where future reactivation of the programs would be warranted.

Strategic Objective 1.1	Expand and Maintain International Export Opportunities
Program Name	Trade Adjustment Assistance
Current Rating	Results Not Demonstrated
Lead Agency	Foreign Agricultural Service
Major Findings/ Recommendations	The assessment found that the program is costly to administer when considered in relation to the number of producers that have been assisted to date.
Actions Taken/Planned	<ul> <li>Performance baselines, based on survey results of individuals who received TAA program benefits in 2004 and 2005, will be established. After that, ambitious performance targets will be established.</li> </ul>

Strategic Objective 2.3	Provide Risk Management and Financial Tools to Farmers and Ranchers
Program Name	Crop Insurance
Current Rating	Moderately Effective
Lead Agency	USDA Risk Management Agency
Major Findings/ Recommendations	Identify improvements in the program that will get it closer to becoming a complete risk management tool for the agriculture sector, such as developing a successful livestock crop insurance plan.
Actions Taken/Planned	<ul> <li>Achieve proposed legislative changes to make the program more effective and efficient by covering more acres at a lower subsidy cost.</li> <li>Developed other efficiency measures that incorporate the whole taxpayer cost (administrative, indemnities, underwriting gains, premium subsidies and company reimbursements) needed to run the program.</li> </ul>

Strategic Objective 2.2	Increase the Efficiency of Domestic Agricultural Production and Marketing Systems	
Program Name	Commodity Purchase Services (Section 32)	
Current Rating	Results Not Demonstrated (Results Not Demonstrated)	
Lead Agency	Agricultural Marketing Service	
Major Findings/ Recommendations	The Section 32 program has three purposes, but it lacks goals and measures in support of any of these underlying purposes.	
Actions Taken/Planned	Developing outcome-based annual and long-term performance measures, including baselines and targets that demonstrate progress towards a long-term programmatic outcome.	

Strategic Objective 2.2	lr	ncrease the Efficiency of Domestic Agricultural Production and Marketing Systems
Program Name		Research and Promotion
Current Rating	•	Results Not Demonstrated (Adequate)
Lead Agency	•	Agricultural Marketing Service
Major Findings/ Recommendations	•	R&P programs are directed by industry-governed boards appointed by the Secretary of Agriculture. Federal oversight by AMS includes reviewing and approving program plans, projects, and budgets. R&P programs are designed to facilitate collective action among producers to maintain and expand markets.
Actions Taken/Planned	•	Clarifying long-term and annual measures to better demonstrate progress toward performance goals.

Strategic Objective 2.2	Increase the Efficiency of Domestic Agricultural Production and Marketing Systems
Program Name	Market News and Marketing Services
Current Rating	Adequate
Lead Agency	Agricultural Marketing Service
Major Findings/ Recommendations	The Marketing Services program (MSP) gathers, analyzes, and makes available market data for use among participants throughout the agricultural marketing chain. Increased information in the marketplace provides all market participants with resources to inform their business transactions.
Actions Taken/Planned	Developing an automated system to collect and post Market News price data.

Strategic Objective 2.2	Increase the Efficiency of Domestic Agricultural Production and Marketing Systems
Program Name	Packers and Stockyards
Current Rating	Results Not Demonstrated
Lead Agency	Grain Inspection, Packers and Stockyards Administration
Major Findings/ Recommendations	The program lacks well-defined internal processes to determine workload priorities, conduct effective investigations, evaluate investigative findings, and monitor industry activity to determine if regulatory reforms are needed.
Actions Taken/Planned	Conducting business process re-engineering to improve internal controls.

Strategic Objective 2.3	Provide Risk Management and Financial Tools to Farmers and Ranchers
Program Name	Dairy Program Income Loss
Current Rating	Results Not Demonstrated (Adequate)
Lead Agency	Farm Service Agency
Major Findings/ Recommendations	<ul> <li>Dairy production is increasing in the U.S., but declining on farms with fewer than 200 cows. Market forces continue to drive consolidation and increase output from larger dairies. The income payments from this program have a modest impact on slowing the decline in production on small to medium size dairy operations.</li> </ul>
Actions Taken/Planned	Feedback from USDA's 2007 farm bill forums will be used to examine this farm safety net program compared to other government and private sector program alternatives to mitigate risk on farm operations

Strategic Objective 2.3	Provide Risk Management and Financial Tools to Farmers and Ranchers
Program Name	Dairy Price Support
Current Rating	Results Not Demonstrated (Results Not Demonstrated)
Lead Agency	Farm Service Agency
Major Findings/ Recommendations	The purpose of the program is outdated. In 1933, USDA first facilitated the purchase of surplus dairy products to ensure an adequate supply of milk. Today the program remains in place, even as the U.S. industry has matured as a global leader in milk production. Overall, USDA manages the program well; however, not at the least cost to the taxpayer.
Actions Taken/Planned	Conduct biannual evaluations of the USDA set prices for nonfat dry milk and butter. Program managers will determine whether the program is operating at least cost to the taxpayer.

Strategic Objective 2.3	Provide Risk Management and Financial Tools to Farmers and Ranchers
Program Name	Non-Insured Crop Disaster Assistance
Current Rating	Moderately Effective
Lead Agency	Farm Service Agency
Major Findings/ Recommendations	The noninsured crop disaster assistance program is valuable for agricultural producers as one of their risk management tools. It is delivered through local county FSA offices, which enable the greatest grassroots outreach possible in the specific county locations where intended beneficiaries live and farm. Participation in NAP has increased steadily over the years"
Actions Taken/Planned	Eliminating shortcomings identified in financial audits by strengthening the processes and controls in the program's disbursement system.

Strategic Objective 2.2	Enhance the Competitiveness and Sustainability of Rural Farm Economics	
Program Name	Economic Opportunities and Quality of Life for Rural America	
Current Rating	Effective	
Lead Agency	Cooperative State Research, Education and Extension Service	
Major Findings/ Recommendations	This program includes a significant number projects (earmarks) added to the Budget by the Congress. Within the limitations of total funding, the inclusion of any unrequested projects reduces funding that could be used for high priority national programs.	
Actions Taken/Planned	The agency should consider the use Grants.gov (a Web-based peer review system), as well as virtual panels to improve the efficiency of the grant review process.	

Strategic Objective 3.1	Expand Economic Opportunities by Using USDA Financial Resources to Leverage Private Sector Resources and Create Opportunities for Growth	
Program Name	Value-Added Producer Grants	
Current Rating	Results Not Demonstrated (Adequate)	
Lead Agency	Rural Development	
Major Findings/ Recommendations	<ul> <li>This program provides valuable support for emerging markets. Though there is room for improvement on how a project is selected for funding, in general, new market technologies are favored and the target audience is reached.</li> </ul>	
Actions Taken/Planned	<ul> <li>Increase targeting of program to emerging markets. Continue to assess the focus of the program on small and medium-sized producers.</li> </ul>	

Strategic Objective 3.2	Improve the Quality of Life Through USDA Financing of Quality Housing, Modern Utilities, and Needed Community Facilities
Program Name	Broadband
Current Rating	Results Not Demonstrated
Lead Agency	Rural Development
Major Findings/ Recommendations	<ul> <li>Other findings include: the program is flawed as seen by the under utilization of two loan types; there are no periodic independent reviews that assess program performance; and the Rural Utilities Service is unable to track the full costs of operating the program.</li> </ul>
Actions Taken/Planned	<ul> <li>Reviewing program operations and community/constituent/borrower needs to determine program improvements to increase program efficiency and demand for under utilized loan types. A new regulation is pending.</li> </ul>

Strategic Objective 3.2	Improve the Quality of Life Through USDA Financing of Quality Housing, Modern Utilities, and Needed Community Facilities
Program Name	Community Facilities
Current Rating	Results Not Demonstrated (Moderately Effective)
Lead Agency	Rural Development
Major Findings/ Recommendations	<ul> <li>The program is managed effectively. Data is collected and analyzed to ensure performance. Funds are tracked and spent in a timely manner using sound financial practices, and there is good collaboration with other Federal, state and local programs.</li> </ul>
Actions Taken/Planned	<ul> <li>Obtaining tangible statistics to create and improve performance measures by utilizing a newly created performance related computer model developed exclusively for Rural Development programs.</li> </ul>

Strategic Objective 3.1, 3.2	Support Increased Economic Opportunities and Improved Quality of Life in Rural America
Program Name	Resource Conservation and Development
Current Rating	Results Not Demonstrated (Adequate)
Lead Agency	Natural Resources Conservation Service
Major Findings/ Recommendations	The Natural Resources Conservation Service (NRCS) has improved its management of RC&D. NRCS: (1) has coordinated a nationwide program review and has taken actions to implement its recommendations; (2) revised the RC&D manual to reflect increased emphasis on program performance and linkages to national performance goals; and (3) increased performance and reduced Federal fund expenditures.
Actions Taken/Planned	Conducting an external, independent review that examines overall program effectiveness and makes recommendations for enhancing program efficiencies.

Strategic Objective 4.2	Reduce the Number and Severity of Agricultural Pest and Disease Outbreaks
Program Name	On-going Pest and Disease Management Programs
Current Rating	Effective
Lead Agency	Animal and Plant Health Inspection Service
Major Findings/ Recommendations	The program purpose is clear. It addresses a clearly defined problem, and works to effectively target resources to areas most affected by specific plant and animal infestations.
Actions Taken/Planned	The program will continue to measure the value of damage mitigated and prevented, refining this new measure.

Strategic Objective 5.1	Ensure Access To Nutritious Food
Program Name	Summer Food Service Program
Current Rating	Moderately Effective
Lead Agency	Food and Nutrition Service
Major Findings/ Recommendations	The program is effectively providing nutritious meals to low income children. Program benefits are well targeted to low-income children, and meals provide the desired levels for most key nutrients and food energy.
Actions Taken/Planned	Examine program meal patterns to address consistency with the 2005 Dietary Guidelines for Americans.

Strategic Objective 5.2	Promote Healthier Eating Habits and Lifestyles
Program Name	Women, Infant, and Children
Current Rating	Effective
Lead Agency	Food and Nutrition Service
Major Findings/ Recommendations	OMB HAS NOT PROVIDED RECOMMENDATIONS
Actions Taken/Planned	OMB HAS NOT PROVIDED RECOMMENDATIONS

Strategic Objective 5.2	Promote Healthier Eating Habits and Lifestyles
Program Name	National School Lunch Program
Current Rating	Results Not Demonstrated (Moderately Effective)
Lead Agency	Food and Nutrition Service

Strategic Objective 5.2	Promote Healthier Eating Habits and Lifestyles
Program Name	National School Lunch Program
Major Findings/ Recommendations	<ul> <li>The program has made progress in improving the nutritional content of meals by reducing the proportion of calories from fat and saturated fat. Between 1993 and 1999 the proportion of calories from fat in the lunches was reduced from 39% to 34%.</li> </ul>
Actions Taken/Planned	Conducting nationally representative study updating information on the nutrient content of meals.

Strategic Objective 5.2	Promote Healthier Eating Habits and Lifestyles
Program Name	Nutrition and Health
Current Rating	Moderately Effective
Lead Agency	Agricultural Research Service
Major Findings/ Recommendations	While this program does include a number projects added to the Budget by the Congress, the number is fewer than in other research programs. However, within the limitations of total funding, the inclusion of any unrequested projects reduces funding that could be used for high priority national programs.
Actions Taken/Planned	The program will continue to monitor the actual use of research outputs (new knowledge and technologies).

Strategic Objective 5.3	Improve Nutrition Assistance Program Management and Customer Service
Program Name	Child and Adult Care Food Program
Current Rating	Results Not Demonstrated (Adequate)
Lead Agency	Food and Nutrition Service
Major Findings/ Recommendations	The program is well targeted to low-income children. Most participating centers and homes provide well-balanced meals and snacks, supplying more than one-half of the Recommended Daily Allowances for calories and substantially more than two-thirds of key nutrients.
Actions Taken/Planned	Developing new long-term measures to assess the nutrient content of meals; piloting a process to collect annual data on compliance with meal pattern requirements.

Strategic Objective 5.3	Improve Nutrition Assistance Program Management and Customer Service
Program Name	Food Distribution Program On Indian Reservations
Current Rating	Adequate
Lead Agency	Food and Nutrition Service
Major Findings/ Recommendations	FDPIR helps low-income Native Americans in areas with limited access to food stores meet their food needs.
Actions Taken/Planned	<ul> <li>Partnering with Indian tribal organizations to develop a method of allocating administrative funds that is more equitable and better supports program operations.</li> </ul>

Strategic Objective 5.3	Improve Nutrition Assistance Program Management and Customer Service
Program Name	Senior and WIC Farmers' Market Programs
Current Rating	Results Not Demonstrated
Lead Agency	Food and Nutrition Service
Major Findings/ Recommendations	<ul> <li>The programs have no standardized means to demonstrate program results. The programs do not have annual performance measures that can demonstrate progress towards achieving the programs' long term goals. Program evaluations are limited and provide no firm conclusions about the impact on participants' consumption of fresh produce.</li> </ul>

Strategic Objective 5.3	Improve Nutrition Assistance Program Management and Customer Service
Program Name	Senior and WIC Farmers' Market Programs
Actions Taken/Planned	<ul> <li>Establishing and implementing monitoring and reporting requirements for the Senior Farmers' Market Nutrition Program.</li> </ul>

Strategic Objective 5.3	Improve the Nation's Health and Nutrition
Program Name	Nutrition and Health
Current Rating	Effective
Lead Agency	Cooperative State Research, Education and Extension Service
Major Findings/ Recommendations	While this program does include a number projects added to the Budget by the Congress, the number is fewer than in other research programs. However, within the limitations of total funding, the inclusion of any unrequested projects reduces funding that could be used for high priority national programs.
Actions Taken/Planned	The agency should consider the use Grants.gov (a Web-based peer review system), as well as virtual panels to improve the efficiency of the grant review process.

Strategic Objective 6.1	Protect Watershed Health to Ensure Clean and Abundant Water
Program Name	Emergency Watershed
Current Rating	Results Not Demonstrated (Adequate)
Lead Agency	Natural Resources Conservation Service
Major Findings/ Recommendations	<ul> <li>The Natural Resources Conservation Service (NRCS) has improved its management of EWP. NRCS has:         <ul> <li>(1) revised its EWP regulation to increase program effectiveness;</li> <li>(2) developed State Emergency Recovery Plans that allow for rapid response;</li> <li>(3) improved its coordination with other emergency assistance agencies;</li> <li>and (4) addressed actions expressed in a number of internal and external evaluations.</li> </ul> </li> </ul>
Actions Taken/Planned	<ul> <li>Improving data management to increase program accountability and efficiency, improve financial reporting, and increase cost-effectiveness.</li> </ul>

Strategic Goal 6	Protect and Enhance the Nation's Natural Resource Base and Environment
Program Name	Natural Resource Base and Environment
Current Rating	Moderately Effective
Lead Agency	Agricultural Research Service
Major Findings/ Recommendations	This program includes a significant number projects (earmarks) added to the Budget by the Congress. Within the limitations of total funding, the inclusion of any unrequested projects reduces funding that could be used for high priority national programs.
Actions Taken/Planned	The program should conduct an independent external retrospective panel to review the Global Change and Air Quality programs during FY 2007.

Strategic Goal 6	Protect and Enhance the Nation's Natural Resource Base and Environment
Program Name	Emergency Conservation
Current Rating	Results Not Demonstrated
Lead Agency	Farm Service Agency
Major Findings/ Recommendations	ECP lacks a mechanism to effectively prioritize its limited disaster recovery funding. The program does not have a system for prioritizing recovery dollars to geographic areas or individual farmers who are most in need of assistance. Instead, funding is generally provided on a first-come-first-served basis across relatively broad geographic areas.
Actions Taken/Planned	Developing and using improved, outcome-based performance measures, including long-term, annual, and efficiency measures.

Strategic Goal 6	Protect and Enhance the Nation's Natural Resource Base and Environment
Program Name	Watershed
Current Rating	Results Not Demonstrated
Lead Agency	Forest Service
Major Findings/ Recommendations	The Forest Service lacks a nationally consistent approach to prioritize watersheds and for management activities on national forests and for providing grants to non-Federal entities. The Forest Service is working to address this.
Actions Taken/Planned	Developing and implementing a strategy to prioritize watersheds for management activities as the basis for program allocations.

Strategic Goal 6	Protect and Enhance the Nation's Natural Resource Base and Environment
Program Name	Mission Support
Current Rating	Results Not Demonstrated
Lead Agency	Forest Service
Major Findings/ Recommendations	The components of this program do not share a common purpose, beneficiary characteristics, or target populations. However, the components address specific and existing problems, interests, or needs.
Actions Taken/Planned	<ul> <li>Examining with OMB the viability of a PART review for a combination of program activities, determining the components of the program, and providing an alternative option to assess the components.</li> </ul>

Strategic Goal 6	Protect and Enhance the Nation's Natural Resource Base and Environment
Program Name	Conservation Operations
Current Rating	Moderately Effective
Lead Agency	Natural Resources Conservation Service
Major Findings/ Recommendations	Overall, Conservation Operations (CO) operates efficiently and effectively. CO has made strides in making its state allocation process more transparent; tracking non-field level activities, including those of contractors and partnering organizations; and linking performance to state budget allocations.
Actions Taken/Planned	Improving CO program management by identifying national program priorities and conducting an independent review of the allocation formula.

Strategic Goal 6	Protect and Enhance the Nation's Natural Resource Base and Environment
Program Name	Conservation Security Program
Current Rating	FY 2008 - Results Not Demonstrated
Lead Agency	Natural Resources Conservation Service
Major Findings/ Recommendations	Although CSP is the only conservation program that recognizes and rewards farmers and ranchers for ongoing high levels of environmental stewardship, it has not yet demonstrated that it effectively motivates people to achieve a higher level of conservation than they otherwise would adopt.
Actions Taken/Planned	Conducting an external, independent review that examines overall program effectiveness.

Strategic Goal 6	Protect and Enhance the Nation's Natural Resource Base and Environment
Program Name	Resource Conservation and Development
Current Rating	Results Not Demonstrated (Adequate)
Lead Agency	Natural Resources Conservation Service
Major Findings/ Recommendations	The Natural Resources Conservation Service (NRCS) has improved its management of RC&D. NRCS: (1) has coordinated a nationwide program review and has taken actions to implement its recommendations; (2) revised the RC&D manual to reflect increased emphasis on program performance and linkages to national performance goals; and (3) increased performance and reduced Federal fund expenditures.
Actions Taken/Planned	Conducting an external, independent review that examines overall program effectiveness and makes recommendations for enhancing program efficiencies.

Strategic Objective 6.3	Protect Forests and Grasslands
Program Name	Wildland Fire Management
Current Rating	Results Not Demonstrated (Adequate)
Lead Agency	Forest Service
Major Findings/ Recommendations	<ul> <li>Large wildfire costs are increasing as a result of many factors, but the Forest Service lacks an overall national management strategy for aligning incentives, improving accountability, and controlling costs by allocating resources on the basis of risk. Multiple Forest Service units spend funds without limits or regard to overall costs.</li> </ul>
Actions Taken/Planned	Refining program delivery by basing resource allocation on risk mitigation, emphasizing accountability for firefighting costs, improving management oversight, and ensuring fair sharing of costs.

Strategic Objective 6.3	Protect Forests and Grasslands
Program Name	Invasive Species
Current Rating	Results Not Demonstrated (Adequate)
Lead Agency	Forest Service
Major Findings/ Recommendations	The Forest Service has implemented a cohesive national strategy for invasive species management that encourages coordination within the agency. Additional work is needed to ensure states and other cooperators link their proposed activities to the Forest Service's Strategic Plan or annual performance measures.
Actions Taken/Planned	Continuing to implement the integrated invasive species strategy based on input from the Regions and other customers; improving outreach and delivery of research and management information.

Strategic Objective 6.4	Protect and Enhance Wildlife Habitat to Benefit Desired, At-Risk and Declining Species		
Program Name	Wildlife Habitat Incentives Program		
Current Rating	Results Not Demonstrated (Adequate)		
Lead Agency	Natural Resources Conservation Service		
Major Findings/ Recommendations	The Natural Resources Conservation Service has improved its management of WHIP. Since WHIP underwent a PART assessment in 2002, it has: (1) adopted recommendations issued by internal and external oversight teams; (2) created new allocation and performance incentive formulas; and (3) instituted new software to track program activities and evaluate and rank applications.		
Actions Taken/Planned	<ul> <li>Improving WHIP management by identifying national program priorities, standardizing the application selection and ranking process, and conducting an independent review of the allocation formula.</li> </ul>		

# **Program Evaluations**

Objective	Title	Findings and Recommendations/Actions	Availability
1.1	GAO Report, December 6, 2005; GAO-06-167 — INTERNATIONAL TRADE: USTR Would Benefit from Greater Use of Strategic Human Capital Management Principals	Findings: GAO recommends that USTR develop a strategic human capital management system addressing the areas of strategic human capital leadership, planning, recruitment and retention, and performance management. There were no recommendations for USDA.  Actions: No USDA action required.	Report is available at http://www.gao.gov/cgi-bin/getrpt?GAO-06-167
	GAO Report, April 30, 2006; GAO- 06-596 — WORLD TRADE ORGANIZATION: Limited Progress at Hong Kong Ministerial Clouds Prospects for Doha Agreement	Findings: This report reviews the results of the Doha Round of WTO negotiations, and the possible completion of the negotiations in 2006.  Actions: No USDA action required.	Report is available at http://www.gao.gov/new.items/d06596.pdf
	GAO Report, June 26, 2006; GAO- 06-737 — OVERSEES STAFFING: Rightsizing Approaches Slowly Taking Hold but More Action Needed to Coordinate and Carry Out Efforts	Findings: While this report focuses primarily on the Department of State, it does refer to FAS' overseas presence, repositioning efforts, and staffing levels. It includes a table of FY 2007 Capital Security Cost Sharing charges. This report contains recommendations for the Secretary of State and the Office of Rightsizing.  Actions: No USDA action required.	Report is available at http://www.gao.gov/new.items/d06737.pdf
	GAO Report, December 9, 2005; GAO-06-162 — CHINA TRADE: U.S. Exports, Investment, Affiliate Sales Rising, but Export Share Falling	Findings: This data-driven, informational report is intended to provide a "by-the-numbers" overview of the U.SChina trade relationship.  Actions: No USDA action required.	Report is available at http://www.qao.qov/cqi-bin/getrpt?GAO-06-162
1.2	OIG Report, March 15, 2006; 07016-01-At — Foreign Agricultural Service Private Voluntary Organization Grant Fund Accountability	Findings: OIG had 19 recommendations for FAS to improve its administration and oversight of the food aid program.  Actions: OIG has accepted FAS' management decision on most of the recommendations, while FAS continues to work with OIG on the few remaining.	Report is available at <a href="http://www.usda.gov/oig/web_docs/07016-01-AT.pdf">http://www.usda.gov/oig/web_docs/07016-01-AT.pdf</a>
2.3	OIG-05401-14-FM, Financial Statements for Fiscal Years 2004 and 2005	Findings: The Deloitte report on FCIC/RMA's internal control over financial reporting contains one reportable condition identified during the fiscal year 2004 audit. FCIC/RMA is in process of resolving the condition. Therefore, this report contains no recommendations.  Recommendations/Actions: RMA has completed the actions recommended by OIG to address this matter.	Report is available at http://www.usda.gov/oig/web docs/05401-14-FM.pdf
	OIG-05801-03-KC, Financial Management Controls over Reinsured Companies	Findings: Both OIG and GAO concluded that RMA had not identified the financial deficiencies of the failed reinsured company primarily because RMA emphasized past compliance and financial data, rather than future financial forecasts. OIG closed this review without recommendations because the problematic issues identified were raised in a December 3, 2003, memorandum to RMA prior to its 2005 SRA negotiations with reinsured companies, and that their findings overlapped those reported by GAO in their June 1, 2004, report.	Report is available at http://www.usda.gov/oig/web docs/05801-3-KC.pdf

Objective	Title	Findings and Recommendations/Actions	Availability
	OIG-05601-13-Te, New Crop Products Submitted by Private Companies	Actions: RMA completed actions necessary to address the issues identified in the above referenced documents.  Findings: RMA needs to establish written procedures to monitor and review the implementation and performance of section 508(h) products.  Recommendations/Actions: RMA completed the actions recommended by OIG to address this matter.	Report is available at http://www.usda.gov/oig/web docs/05601-13-TE.pdf
	OIG-05099-11-SF, Prevented Planting Payments For Cotton Due to Failure of the Irrigation Water Supply in California and Arizona Crop Year 2003	Findings: OIG found none of the cotton producers in their sample improperly sold their water service rights, and nothing came to their attention to indicate that the pertinent controls were not operating as prescribed. However, four cotton producers in California did not meet program eligibility requirements.  Actions: RMA is reviewing the four producers to determine whether loss payments were improperly paid to these individuals.	Report is available at http://www.usda.gov/oig/web docs/05099-11-SF.pdf
3.1.1	Business Programs Assessment Reviews (BPARS)	Findings: National Office engages Farm Credit Administration to provide Commissioned Bank Examiners to assist in evaluating performance and risk inherent in performance of up to 10 states each year. In FY 2006, six State Office operations and portfolio management were reviewed. This included assessment of local offices. Actions: Findings, causes and recommendations vary widely state to state. Each state office undertakes corrective actions in response to the BPAR.	Banking information and borrower data is protected under Federal Bank Secrecy Laws, but redacted reports are available to the public through Freedom of Information.
3.2.2	2003 PART of Rural Water and Wastewater Grants and Loans and 2005 RePART	Findings: The Water Programs addressed the concerns of the Office of Management Budget (OMB) that the program needed to develop better long-term goals to quantify program success and identify solutions to better serve rural residents.  Actions: In May 2005, the program revised its long-term measures to focus strategically on reducing rural peoples' exposure to water related health and safety hazards by FY 2010.	The program assessment is available at http://www.whitehouse.gov/omb/expectmore/summary.10000458.2005.html
	2003 PART of Rural Water and Wastewater Grants and Loans and 2005 RePART	Findings: OMB recommended that the Water Programs create reasonable long-term goals that measure outcomes.  Actions: The Water Programs is in the process of developing indicators to assess the financial performance of its water and wastewater borrowers. The Water Programs will track borrowers' financial ratios to gauge the financial viability of borrowers' systems. The target is to establish the data collection format and scoring criteria for rating the borrower based on the ratios. The Water Programs will consult the Economic Research Service in identifying sources of performance data.	The program assessment is available at http://www.whitehouse.gov/omb/expectmore/summary.10000458.2005.html

Objective	Title	Findings and Recommendations/Actions	Availability
	EPA Clean Watersheds Needs Survey 2000 and the EPA 1999 Drinking Water Infrastructure Needs Survey	Findings: The EPA Clean Watersheds Needs Survey 2000 showed that small communities of under 10,000 have documented needs of \$16 billion for wastewater systems. Needs for drinking water are significantly higher. The EPA 1999 drinking water survey showed \$48.1 billion in needs for communities of 10,000 or less and \$31.2 billion in needs for communities of 3,300 or less.  Investments in new, high quality environmentally safe water and wastewater infrastructure or in replacing aging infrastructure reduce reductions out-migration of young people and attract new businesses.  Actions: The Water Programs2 has developed a measure to track annually the number of borrowers; subscribers (customers) receiving new or improved services from water systems and facilities.	Reports available at: http://www.epa.gov/safewate r/needssurvey/index.html http://www.epa.gov/ipbpages /archive/V7/444.htm
	2003 PART of Rural Water and Wastewater Grants and Loans and 2005 RePART	Findings: OMB recommended that the Water Programs develop better annual goals.  Actions: The Water Programs developed a Loan/Grant Ratio to improve the loan to grant mix so that more loan dollars are used by systems that can afford maximum debt capacity. This result limits grant funds to the neediest systems.	The program assessment is available at http://www.whitehouse.gov/omb/expectmore/summary.10000458.2005.html
	2003 PART of Rural Water and Wastewater Grants and Loans and 2005 RePART	Findings: The Office of Management Budget (OMB) recommended that the Water Programs develop better annual goals to quantify program success and identify solutions to better serve rural residents better.  Actions: The Water Programs created an annual measure to track the percent of total project costs from commercial credit and other non- agency sources for projects funded from RUS loans and grants	The program assessment is available at http://www.whitehouse.gov/omb/expectmore/summary.10000458.2005.html
	OIG audit, "Rural Utilities Service, Water and Waste Program: Grant Eligibility, #09601-6-KC, September 2003 Referrals to commercial credit	Findings: OIG issued a report, showing that RUS was evaluating other credit inadequately.  Actions: The Water Programs WEP addressed commercial credit by implementing an underwriting program that identifies an applicant that has the resources and ability to use commercial credit as part of its financing package. An annual goal to measure applicant and borrower referrals to other commercial credit was developed and implemented in 2005.	The report is available at: http://www.usda.gov/oig/web docs/09601-6-KC.pdf
3.2.3	Community Facilities Program	During FY 2006, the Office of Inspector General completed a program wide (Direct, Guaranteed, and Grant) audit (Report No. 04601-4-AT). This was a nationwide audit, even though reviews were primarily completed in North Carolina and Virginia. This audit identified no outstanding issues and OIG provide no recommendations which required a management decision. The Community Programs Staff reviewed files in five states during FY 2006 as part of a Management Control Review. No material weaknesses were identified as part of this review. Documentation and accessibility items were identified and the Agency is taking action to rectify the outstanding items.	The report is available at http://www.usda.gov/oig/web docs/04601-4-AT.pdf

Objective	Title	Findings and Recommendations/Actions	Availability
3.2.4 and 3.2.5	Telecommunications and Electric Data validation process	Findings: Subscriber growth is tracked quarterly on an aggregate basis for performance measurement reporting.  Actions: Individual project data are periodically examined by the program line offices, and are verified by General Field Representatives when loans are in process.	Performance data available in a variety of reporting documents and from the RUS BPI coordinator. Project data are available from the individual program line offices. Contact Electric Program at 202-720-9545 Contact Telecommunications Program at 202-720-9554
4.1 and 4.1	OIG-24601-0006-Ch: Food Safety and Inspection Service's In-Plant Performance System	Findings: FSIS' policies and procedures generally were adequate and the system improved supervision and inspector accountability. However, the review process could be strengthened in the areas of written guidance and management oversight. The final report was released to the public March 2006.  Actions: FSIS generally agreed with these findings and continues to take action to address them.	Report available at http://www.usda.gov/oig/web docs/24601-06-CH.pdf Additional information may be requested from the USDA's Food Safety and Inspection Service—Office of Program Evaluation, Enforcement and Review, Program Evaluation and Improvement Staff USDA-FSIS (202) 720-6735
4.2	GAO-06-132 Plum Island Animal Disease Center: DHS and USDA Are Successfully Coordinating Current Work, but Long-Term Plans Are Being Assessed, December 19, 2005	Findings: DHS and USDA's coordination at Plum Island Animal Disease Center has been largely successful because of the agencies' early efforts to work together to bring structure to their interactions at the island. To make more effective use of limited space, GAO recommended that DHS, in consultation with USDA, pursue opportunities to shift work that does not require the unique features of Plum Island to other institutions.  Actions: APHIS continues to explore collaborations with other institutions to allow for the most effective use of the limited space at the Plum Island facility. In addition, access to disease specific experts and efficient use of expertise is a factor in determining projects that require use of the Plum Island location.	The report is available at http://www.gao.gov/new.items/d06132.pdf
	Audit Report: Animal and Plant Health Inspection Service Bovine Spongiform Encephalopathy (BSE) Surveillance Program – Phase II and Food Safety and Inspection Service Controls Over BSE Sampling, Specified Risk Materials, and Advanced Meat Recovery Products - Phase III, Report No. 50601-10-KC, USDA Office of Inspector General, January 2006	Findings: OIG evaluated the elements of the interlocking safeguards in place to protect US beef from BSE, particularly the expanded BSE surveillance program that was put in place a BSE-positive cow was found in December 2003 and the effectiveness of the controls and processes.  Actions: APHIS and FSIS were in general agreement with the findings and recommendations and provided specific actions they had taken or planned to take as well as timeframes for implementing the proposed actions. Their joint response is included in its entirety as a separate exhibit in the OIG's report.	The OIG report is available on the Web at:  http://www.usda.gov/oig/web docs/50601-10-KC.pdf
5.1	Food Stamp Participation Rates 2004	Findings: This report presents the latest in a series on participation rates based on Current Population Survey and national participation rates for fiscal year 2004. The findings of this report indicate that 60 percent of the individuals eligible for food stamp benefits choose to participate. As a result, it appears that FSP is reaching the needlest eligible individuals. Although the FSP served more than 60 percent of all eligible individuals, it provided 71 percent of the benefits that all eligible individuals could receive. As a result, the FSP appears to be reaching the needlest eligible individuals. Actions: The report contained no recommendations for action by USDA.	Available on the FNS Web site at http://www.fns.usda.gov/oan e/MENU/Published/FSP/FIL ES/Participation/FSPPart200 4.pdf

Objective	Title	Findings and Recommendations/Actions	Availability
	State Food Stamp Participation Rates For The working Poor in 2003	Findings: In general, the pattern of participation rates based on these estimates show that overall participation among the working poor vary widely across States, with some over 60 percent and some under 40 percent. In most States, participation among the working poor is significantly less among all eligible.  Actions: The report contained no recommendations for action by USDA.	Available on the FNS Web site at http://www.fns.usda.gov/oan e/MENU/Published/FSP/FIL ES/Participation/WorkingPoo r2003.pdf
	South Carolina Food Stamp and Well-Being Study Well-Being Outcomes Among Food Stamp Leavers	Findings: The study examined from a survey of families in South Carolina who left the Food Stamp Program (FSP). The study Results show that families with rising incomes are less likely than families with lower incomes to experience food hardships or other adverse events to have a negative view about life changes.  Actions: The report contained no recommendation for action by USDA.	Available on the ERS Web site at http://www.ers.usda.gov/publications/ccr22/ccr22.pdf
	South Carolina Food Stamp and Well-Being Study Well-Being Outcomes Among Food Stamp Leavers	Findings: The study examined from a survey of families in South Carolina who left the Food Stamp Program (FSP). The study Results show that families with rising incomes are less likely than families with lower incomes to experience food hardships or other adverse events to have a negative view about life changes.  Actions: The report contained no recommendation for action by USDA.	Available on the ERS Web site at http://www.ers.usda.gov/publications/ccr22/ccr22.pdf
	WIC Participant and Program Characteristics 2004	<b>Findings:</b> This report summarizes demographic characteristics of WIC participants nationwide. Actions: This report did not contain recommendations for action by USDA.	Available on the FNS Web site at http://www.fns.usda.gov/oan e/MENU/Published/WIC/FIL ES/pc2004.pdf
	WIC Program Coverage: How Many Eligible Individuals Participated in the Special Supplemental Nutrition Program for Women Infants, and Children (WIC): 1994 to 2003?	Findings: This report illustrates the methodology used to calculate the number of individuals eligible for the WIC program. In 2003, about 57% of eligible participants.  Actions: This report did not contain recommendations for action by USDA.	Available on the FNS Web site at http://www.fns.usda.gov/oan e/MENU/Published/WIC/FIL ES/WICEligibles.pdf
5.2	Food Stamp Nutrition Education Systems Review	Findings: The report presents a comprehensive and systematic national description of food stamp nutrition education operations in the fiscal year 2004. It also provides a comparison of those operations to the standards of excellence for nutrition education developed as the Food Stamp Education Guiding Principles.  Actions: This report did not contain recommendations for action by USDA.	Available on the FNS Web site at  http://www.fns.usda.gov/oan e/MENU/Published/Nutrition Education/Files/FSNESyste msReview.pdf
	Effects of Food Assistance and Nutrition Programs on Nutrition and Health	Findings: This report provides a summary of a comprehensive review and synthesis of published research on the impact of USDA's domestic food and nutrition assistance programs on participants' nutrition and health outcomes.  Actions: This report did not contain recommendations for action by USDA.	Available on the ERS Web site at http://www.ers.usda.gov/publications/fanrr19-4/fanrr19-4.pdf
	WIC Food Packages: Time for a Change	Findings: USDA contracted with the Institute of Medicine to evaluate the WIC food packages, and to recommend cost-neutral changes to improve the package to better meet the nutrition needs of WIC participants.  Actions: The report recommended a range of WIC food package changes. USDA published a proposed rule that reflects these recommendations in August 2006.	Available on the FNS Web site at http://www.fns.usda.gov/oan e/MENU/Published/WIC/FIL ES/Time4AChange(mainrpt).pdf

Objective	Title	Findings and Recommendations/Actions	Availability
5.3	The Effect of Simplified Reporting on Food Stamp Payment Accuracy	Findings: This analysis suggests that the simplified reporting policies adopted by States in 2004 could have lowered error rates by 1.2 to 1.5 percentage points. Therefore, if all states adopted the policy of simplified reporting, the payment error rate might improve further.  Actions: This report does not contain recommendations for action by USDA.	Available on the FNS Web site at http://www.fns.usda.gov/oan e/MENU/Published/FSP/FIL ES/ProgramIntegrity/Simplifi edReporting.pdf
6.1	OIG Report, September 5, 2006, OIG/10099-5-SF – Natural Resources Conservation Service Farm and Ranch Lands Protection Program in Alabama	Findings: OIG recommended that NRCS terminate its FY 2004 FRPP cooperative agreements with the land trust, and deobligate \$1,021.438. NRCS will consult with legal counsel to consider legal remedies available concerning the trust's material noncompliance with the appraisal requirements for the FY 2003 easement transactions.  Actions: NRCS is requesting closure from OCFO and developing Completion Plan to address pending management decisions.	Report is available at http://www.usda.gov/oig/web docs/10099-05-SF.pdf
6.2 and 6.3	GAO Report, September 27, 2006, GAO/06-969 – USDA Should Improve Its Process for Allocating Funds to States for the Environmental Quality Incentives Program	Findings: GAO recommended that NRCS document its rationale for the factors and weights for its general financial assistance formula and use current and accurate data. GAO also recommended that NRCS continue to analyze current and newly developed long-term performance measures for EQIP program and use the information to make farther revisions to the financial assistance formula to ensure funds are directed to areas of highest priority.	Report is available at http://www.gao.gov/new.items/d06969.pdf
		Actions: NRCS has taken proactive steps to address the concerns of the report by contracting for an independent review of all NRCS conservation program allocation formulas, including EQIP. NRCS also continues to make significant improvements in implementing performance measures for tracking the environmental benefits produced through EQIP.	
6.3	OIG 08601-6-AT Implementation of the Healthy Forests Initiative (September 2006)	Findings: Develop and implement specific, national guidance for assessing risks of wildland fires in determining the benefits of fuels treatment and restoration projects.  Actions: The Forest Service will develop national guidance for the Regions to use in assessing the risks from wildfires.  Findings: Establish controls to ensure that the process and methodology to identify and prioritize the most effective fuels reduction projects can be utilized at all levels.  Actions: The FS will establish controls to assist Regions in identifying and prioritizing hazardous fuels projects. Elements may include proximity to a community, fuel type, etc.  Findings: Establish controls to ensure funds are distributed according to where the highest concentrations of priority projects are located.  Actions: The agency is developing a regional fuels allocation strategy that will link the regional funding and associated fuels reduction projects.  Findings: Develop, implement more meaningful outcomeoriented performance measures for reporting metrics.  Actions: The FS developed a core set of new performance measures. One measure is "Number of acres maintained and improved by treatment category and of those improved, the percent that change condition class.	Report is available at http://www.usda.gov/oig/web docs/08601-6-AT.pdf

Objective	Title	Findings and Recommendations/Actions	Availability
6.3 (Cont'd)		Findings: Improve accomplishment reporting by including more detailed information, such as breaking down accomplishments by region, and differentiating between initial and maintenance treatments and multiple treatments on the same acres.  Actions: The FS will update its reporting systems and documents to include more detailed information on accomplishments.	
6.4	GAO Report, April 28, 2006, GAO/06-312 – Despite Cost Controls, Improved USDA Management Is Needed to Ensure Proper Payments and Reduce Duplication with Other Programs	Findings: GAO recommended that NRCS review its state offices' wildlife habitat assessment criteria and develop a process to preclude and identify duplicate payments.  Actions: NRCS has requested states to submit a copy their wildlife habitat assessment criteria for all proposed CSP watersheds for FY 2007 for review by Deputy Administrator and National Biology Team. NRCS has created an automated system within the ProTracts contracting software to conduct a comparison between existing WHIP, AMA, and EQIP with CSOP application to reveal potential areas of overlapping practices to minimize duplication of payments.	Report is available at http://www.gao.gov/new.items/d06312.pdf