

Mission :

To Regulate and Support Arizona Agriculture in a manner that encourages farming, ranching and agribusiness, while protecting consumers and natural resources.



**ARIZONA
DEPARTMENT OF AGRICULTURE
ANNUAL REPORT**

FY2009 – 2010

JANICE K. BREWER
Governor



DONALD BUTLER
Director

Arizona Department of Agriculture

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September 30, 2010

Honorable Janice K. Brewer
Governor, State of Arizona
1700 West Washington Street
Phoenix, AZ 85007

Dear Governor Brewer:

I am pleased to submit to you the Arizona Department of Agriculture's Annual Report for fiscal year 2009-2010. We award grants and administer public advocacy committees to protect the general public. Inside you will find details about the many services provided by our department for the general public and the ways we regulate and support Arizona agriculture while also protecting consumers and natural resources.

In a time of decreasing resources and when people are becoming increasingly concerned and aware of their food sources, the Arizona Department of Agriculture has been working diligently with industry to develop more effective ways to ensure that foods and feeds produced in Arizona and consumed worldwide are safe and of the highest quality.

We ensure that meat, poultry, dairy, and egg products processed in Arizona and consumed globally are safe, that animal feed meets safety and label requirements, and that fruit and vegetables and plants brought into this state are not carrying harmful pests or diseases which affect everyone in Arizona.

I thank you for your continued support of agriculture. I ask for your help with two things: 1) reminding everyone it takes money to keep food safe, and; 2) encouraging others to read this report and remember how important agriculture is to the Arizona economy. We must protect our ability to continue to produce the most affordable and safest food in the world. Food production is not only a basic fact of life but it is also a critical aspect of homeland security.

Sincerely,

A handwritten signature in black ink that reads "Donald Butler".

Donald Butler
Director

DB/jp

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Animal Services Division (ASD)

Food Safety, Quality Assurance

The Food Safety, Quality Assurance (FSQA) programs were established to provide consumer protection at the production, wholesale and retail levels. Though their primary function is public health, they also provide quality control of the regulated products. Many products are tested for microbiological factors, and physical properties, such as fat or water content, proper pasteurization and other properties important to consumers.

FSQA - Dairy & Dairy Products Inspection Program

From the farm until the products hit the retail store, dairy inspection staff inspect every part of the dairy industry. Starting with farm inspections, inspectors review overall farm sanitation, milking and milk handling equipment, use of animal drugs and milking procedures. Refrigeration equipment is checked for prompt cooling of milk and water supplies are sampled to ensure they are potable, as required. Water handling equipment and wells are inspected for compliance with public health standards. Water supplies are checked to ensure that potable and non-potable water supplies are not cross connected.

Cooperative industry samplers

Periodic reviews are made on both milk tankers and milk haulers who are licensed by ADA after passing a test on milk handling and sampling. ADA licensed haulers pull samples of all milk they transport for potential random sampling at destination by dairy inspectors. Samples selected for microbial or other testing are transported to the State Agricultural Laboratory for microbiological testing, freezing point, fat analysis, vitamin analysis and other public health or quality testing. Besides fluid milk, other dairy products are tested for compliance with standards.

At processing plants, dairy inspectors inspect the entire facility, starting with water supplies, sanitation of the plant inside and out and for pest control measures. Inspectors check receiving facilities for milk handling when it arrives for processing. Pipes, hoses and fittings are inspected to see that they are made of approved materials and are in a good state of repair. Inspectors also check packaging facilities inside the plant, sanitary procedures and record keeping. Periodic tests are made of pasteurization equipment, by checking welds, and overall condition of pipes that transfer milk. Pasteurizers and holding tubes are also checked for proper pasteurization temperatures and times, as well as checking for public health controls which automatically divert milk when it has not been properly heat treated.



A High Temperature Slow Time (HTST) pasteurizer, for heat treating milk

Pasteurized Milk vs. Raw Milk. What's the difference?

Nearly all milk in Arizona is sold pasteurized. This means the fluid milk is subjected to heat treatment for a specified period of time to kill microorganisms which could be in the raw product. This process has been used since the turn of the last century. Recently, industry has embraced the use of aseptic processing, a type of flash pasteurization at very brief high heat levels. This produces a shelf stable product which can be held at room temperature for weeks without being refrigerated.

A small quantity of milk sold in Arizona is processed and packaged as "raw" milk and is not heat treated to kill potentially pathogenic organisms. Although this milk must meet the same microbial standards as pasteurized milk, it could potentially contain harmful organisms. Raw milk is required to have a warning statement on the container, so that consumers understand the potential risks of consuming it.

It is illegal to sell raw milk for human consumption in Arizona without first obtaining a grade A dairy permit. An exception is milk which is sold for pet consumption. The product is blended with powdered charcoal to denature the milk and turn it gray, in order to deter consumption by humans.



Cows Eating Silage

Interstate shipment of milk and dairy products

Some milk produced in Arizona is shipped to other states, either as fluid milk or other dairy products, in bulk or packaged form. The state of Arizona participates in the nationwide Interstate Milk Shippers (IMS) program, which creates a seamless nationwide inspection program under the regulation of participating states. Participation in this program is voluntary, with periodic visits being made by FDA staff that assist in standardizing both inspections and laboratory testing to the same regulatory standards nationwide.

FSQA - Egg & Egg Products Inspection Program

Egg inspection program staff provides inspection services to the public, industry, and the federal government. The egg inspection program is funded entirely from a "mill fee" assessment from industry on each dozen of eggs or pound of egg products sold in Arizona, and receives no general funds from the state.

Program staff inspects shell eggs and egg products from production at laying facilities to wholesalers and retail stores. Inspectors verify that products are held at temperatures of forty-five degrees Fahrenheit for eggs and zero degrees Fahrenheit for frozen egg products. Inspectors verify proper packaging, sanitary handling, dating and weighing of eggs at production facilities, warehouses, or retailers for product originating out of state.

Eggs processed or sold in Arizona are marked with mandatory expiration dates, and has one of the toughest standards in the United States. The 24 day dating period helps to ensure that eggs continue to meet the marked grade after they are purchased by consumers.

The Department will soon begin enforcement of new poultry husbandry standards for laying hens which are producing eggs to be sold in Arizona. This law deals with living and handling conditions for caged layers, and sets baseline standards for such things as cage size, environmental conditions, feed and water and general animal husbandry. The new law will be implemented in 2009, and will affect all caged layers from flocks of more than 20,000 laying hens. The agency will apply the written standards for all flocks subject to the new law.

USDA Inspection and Grading Program

The ADA also maintains cooperative programs with the U.S. Department of Agriculture (USDA) to provide "grade labeling" services to industry upon request. These cooperative programs also include surveillance and enforcement under the federal Egg Products and Inspection Act, which regulates the movement and processing of certain types of under-grade eggs to keep them from entering the market. The ADA also enforces the Agricultural Marketing Act of 1970.

Inspectors provide inspection services for USDA's school lunch program for poultry purchases made on behalf of school districts statewide. Warehouses receive truckloads and rail car deliveries of poultry products that our inspectors check for proper handling in transit, including temperature checks.

Graders perform both temporary and resident (in-house) grading services to the egg industry in Arizona. Four state employees are stationed at two packing plants and provide inspection / grading services 365 days a year, 7 days a week. Under this USDA program, resident graders continually monitor plant sanitation, processing temperatures, handling and holding cooler temperatures. Eggs packed under USDA program supervision are eligible to be marked with USDA shield grademarks or other USDA identification. This USDA grade marks are valuable because many entities require it for sale, such as some grocers, commercial foodservice, foreign countries and the U.S. military.

FSQA - Meat and Poultry Inspection Program

The meat and poultry program is a federal-state cooperative program, funded 50% from the state general fund and 50% by USDA-FSIS. The program oversees slaughter of amenable meat animals and poultry which is offered for official inspection, prior to sale to the public. Operating to help ensure both food safety and truth in labeling to consumers, inspectors visit regulated facilities on a daily basis. The program authority is established by state statutes and rules, the federal meat inspection act, and the federal poultry products inspection act.

Inspectors staff and supervise plants under official inspection which sell meat and poultry in both wholesale and retail trade. Inspectors also periodically visit other processors known as "custom exempt" processors, which are firms that process meats, game and poultry for the personal consumption of the livestock owner. These types of processors may not sell meats to the general public without obtaining an official slaughter and processing license.

ADA inspectors receive training including Hazard Analysis Critical Control Point (HACCP) inspection procedures, Sanitation Standard Operating Procedures, and animal ante and post mortem inspection procedures for disease. Before processing our inspectors review general sanitation, processing procedures and HACCP plans. Inspectors visit plants to check for compliance with state and federal regulations, and to check that the firms are in compliance with their own HACCP plans and operating procedures. Inspector ensures that microbiological samples from the facility and product are reviewed at official labs.

In order to verify compliance with label formulations, meat samples are taken to analyze fat content, water content, spices, additives and other items. Inspectors and program management staff check product formulations prior to product approval. Products that meet regulatory requirements receive a triangular "mark of inspection", which shows that it is a product approved by the agency.

FSQA - Meat and Poultry Compliance Program

An integral part of the meat and poultry program is compliance. ADA's Compliance Officers and other staff are utilized to enforce both Arizona and Federal statutes, with respect to legal slaughtering, truck wrecks involving meat products, and meat and poultry products which have been illegally imported into Arizona and/or the United States. Compliance helps to ensure that animals are slaughtered in a humane fashion and that meats are processed in a sanitary and safe manner.

Palo Verde Nuclear Generating Station – Fixed Nuclear Facility – Emergency Response

The Arizona Department of Agriculture is an integral part of the state and county response to any emergencies related to the Palo Verde Nuclear Generating Station located West of Phoenix. With three reactors, this is the largest nuclear power plant in the United States, with the capacity to serve millions of homes.

In cooperation with state, county and federal agencies, ADA participates yearly in nuclear preparedness drills. Every other year (exposure exercise) and every sixth year (ingestion exercise), federal agencies grade the state response during drills and prepare a written evaluation. Every other year, an exposure exercise is conducted, with an “ingestion” exercise every sixth year. A passing grade from cooperating agencies is required for Palo Verde to maintain an operating license by the Nuclear Regulatory Commission.

For the 2009 exercise, the Department met all applicable standards for emergency response. The FSQA programs are integral to departmental participation in such drills, which also includes Citrus, Fruit and Vegetable staff, animal health veterinarians and livestock officers.



A NIGHT VIEW OF THE 50 MILE PALO VERDE NUCLEAR PLANT. A 10 MILE EMERGENCY PLANNING ZONE IS ESTABLISHED IN CASE OF WIND DRIFT OF RADIOACTIVE MATERIALS AWAY FROM THE PLANT. THIS WOULD BE THE MAIN FOCUS IN AN EMERGENCY SITUATION.

Service to the animal industry – with a focus on consumer protection

Working closely with county health departments, other state and federal agencies, FSQA has a long history of service to consumers. Some six years after Arizona statehood, the office of the Dairy Commissioner was established in 1918 as one of the first public health programs in the State of Arizona. It was followed by the establishment of the egg inspection program in 1939, which had a major role in not only egg inspection, but procurement of poultry products for the then War Food Administration during multiple wars. The meat and poultry program similarly has had multiple decades of service to the public and the livestock industry in Arizona.

Departmental inspectors working within the livestock and animal industries, work cooperatively to perform inspection and grading services within the industries. However, a major focus continues to be public protection, both in terms of public health and with respect to producing high quality standardized products. In order to support this goal, agency inspectors can be found working early hours, weekends and holidays, providing inspection services, in cooperation with other government inspectors. Also, the Department, post 9/11, maintains cooperative relationships with both federal and state agencies, in furthering efforts to maintain a safe food supply.

Animal Health and Welfare Program

Priorities and Oversight

The highest priority of the Animal Health and Welfare Program (AHWP) is the prevention, rapid identification of, and response to, diseases of livestock, poultry and commercial fish - some of which are transmissible to humans. In addition to diseases that are normally foreign to the United States, these diseases include many that exist in other parts of the U.S., but have never been identified in Arizona, or have been recently eliminated from Arizona.

ADA's Office of the State Veterinarian (OSV) oversees the AHWP responsible for safeguarding our livestock, poultry and commercial fish resources from devastating diseases, and protecting the public from livestock diseases transmissible to people, and from harmful livestock interactions. Additionally, the staff veterinarians in the AHWP provide veterinary expertise to the Meat and Poultry Inspection Program responsible for the oversight of livestock and poultry slaughtering as well as processing. Under authority of agricultural and criminal statutes, field staff is active in ensuring the humane treatment of livestock.

The State Veterinarian provides the technical expertise to the AHWP and collaborates with state and federal government agencies in the U.S. as well as Mexico - in the enforcement of laws to control livestock and poultry diseases such as Foot and Mouth Disease, Bovine Spongiform Encephalopathy (Mad Cow Disease), Tuberculosis and Brucellosis in cattle, Brucellosis and pseudorabies in feral and domestic swine, scrapie in sheep, chronic wasting disease in deer and elk, rabies in all animals, and other diseases that are foreign to the United States.

ADA's AHWP officers and inspectors provide a valuable service to the people of Arizona by protecting livestock from contagious and infectious diseases, documenting animal movement, and regulating the health of animals. Acting on behalf of the State Veterinarian, officers and inspectors may enter any premises where livestock are kept or maintained to examine for evidence of disease and ownership, and to confirm their humane care. The field component of the AHWP consists of eight officers and five inspectors who are assisted by a force of part-time deputies who help during increased inspection demands. One officer has received advanced training in equine welfare issues and takes the lead in complicated welfare cases.

Animal Health Programs

Ongoing state / federal / industry programs for the elimination of brucellosis and tuberculosis in cattle; pseudorabies in swine; and equine infectious anemia in horses, continue to be the major focus of field veterinarians. Scrapie in sheep; Chronic Wasting Disease (CWD) in cervids; Johne's Disease in cattle; and West Nile Virus in horses, continued to be a focus of ASD staff this year.

Control & Eradication Program Surveillance Statistics

Bovine Brucellosis – Live Animal Blood Tests	2546
Bovine Brucellosis – Blood Samples Collected at Slaughter	168,387
Swine Brucellosis – Blood Tests	898
Bovine Tuberculosis – Tuberculin Skin Tests	78,673
Equine Infectious Anemia – Blood Tests	12,360
Official Calfhood Brucellosis Vaccinations	78,003

USDA Cooperative Agreements

Foreign Animal Diseases (FAD) and National Veterinary Stockpile (NVS) Planning

Exotic Newcastle Disease (END) and Notifiable Avian Influenza (NAI)

The NAI and FAD Cooperative agreements continue with assistance from the USDA as well as state and industry stakeholders. As part of the surveillance program for NAI, the Arizona Veterinary Diagnostic Laboratory continues to conduct diagnostic screening on poultry samples submitted by AHWP staff as well as on wild birds submitted by the Arizona Game and Fish Department and USDA Wildlife Services. Poultry samples are collected during field investigation of Livestock and Poultry Hotline calls reporting unknown disease in poultry and are routinely screened for NAI and END. Other surveillance activities conducted during this reporting period include seasonal monitoring of sentinel flocks scattered throughout the southeastern, southern, and central regions of the state in conjunction with monitoring for West Nile Virus activity by the Arizona Department of Health Services/Arizona Veterinary Diagnostic Laboratory. Three sentinel flocks in the western part of the state near the international border and migratory bird resting areas on the Colorado River have been monitored year-around. All surveillance to date for NAI and END has been negative. GIS mapping of premises housing non-commercial poultry has been discontinued due to insufficient funding. During FY 2010 an outreach folder previously developed by the ADA and containing information on NAI and END as well as information on biosecurity for poultry flocks continued to be disseminated statewide to non-commercial poultry owners. A second outreach cycle is being planned for FY 2011. Also, presentations concerning these diseases are made to those groups requesting them.

National Veterinary Stockpile planning

In conjunction with the USDA-APHIS National Veterinary Stockpile (NVS), the Arizona Department of Emergency Management, and other county, state and federal agencies ADA participated in a joint table-top exercise with the Navajo and Hopi Nations (photo below) on August 5, 2009 to develop an Arizona NVS Plan to receive, manage, store, and distribute supplies from the National Veterinary Stockpile during emergencies affecting livestock and poultry. Receiving sites have been identified for this purpose and a draft AZ NVS Plan has been developed as required by the USDA NVS. The AZ NVS Plan is scheduled to be completed by the end of 2010 in preparation for a plan workshop to be held in Arizona by the USDA NVS in spring 2011 to be followed by a full-scale exercise in spring 2012.



Attendees at the
 USDA-NVS/Arizona/Navajo/Hopi Joint Tabletop Exercise August 5, 2009

Foreign Animal Disease Program Surveillance Statistics

Early recognition of Foreign Animal Disease (FAD) is paramount to reducing the impact of a devastating disease outbreak. Field investigations of possible FAD performed by Federal and ADA staff veterinarians during the past year include:

Cattle	3
Equine	16
Sheep	1
Canine	2
Avian	12
Total investigations	34
Total positive diagnoses	2

All FAD investigations were conducted within 24 hours of notification and, with the exception of two cases, were negative for FAD. This demonstrates ADA's commitment to rapid investigation. The two positive FAD diagnoses were Vesicular Stomatitis in horses located on premises close to the international border in Cochise County. ADA and USDA initiated a rapid response to confirm the diagnosis, quarantine all livestock on the premises and monitor the affected horses during the healing process.

Bovine Spongiform Encephalopathy (BSE)

Although USDA's enhanced surveillance program for BSE has concluded, maintenance surveillance activities continue with ADA assisting USDA in investigating and collecting samples from on-farm mortalities succumbing to Central Nervous System disease.

Animal Movement Regulations

The AHWP is focused on protecting and regulating the livestock industry. While the primary focus is protecting livestock from animal disease and ensuring their humane care, the AHWP administers the brand Self-Inspection Program to oversee the owner-generated documentation of

the movement of Arizona livestock. The ability to trace the movement of animals through the marketing chain is the cornerstone of an effective disease control program. If a diseased animal is located, knowing where the animal has been enables identification of potentially exposed animals, and the implementation of disease mitigation strategies.

Animal Disease Traceability System

The voluntary Animal Disease Traceability System in Arizona continues to be overseen by ADA. The focus of the program continues to be premises registration (Premises ID) for all eligible producers of beef and dairy cattle, and sheep, goat, equine owners. Registered premises are assigned a seven digit, alpha-numeric Premises ID number. This effort continues to require a monumental outreach effort in order to educate all livestock and poultry owners. ADA continues to receive funding for this voluntary program. As the program evolves, use of Animal Disease Traceability System compatible animal identification tags (that may or may not be electronic) will be phased in.

ADA completed three pilot projects with several different ranchers, dairymen, feedlots and two harvest houses. These projects, funded by USDA, were educational projects allowing us to learn and recognize the best methods of tagging and tracking cattle. The projects helped identify problems in tagging and tracking cattle that can be improved before the program moves to wider use of identification tags and tracking systems.

Both the Hopi Tribe and Navajo Nation have implemented premises identification and are now applying electronic identification tags (EID's) to their cattle. This will enable the cattle to be tracked as they are moved through Sun Valley Livestock Auction in Holbrook, Arizona. The Sun Valley Livestock Auction was part of one of the pilot projects and was set-up to read the EID tagged cattle as they come into the auction. The Hualapai, White Mountain Apache, San Carlos Apache and the Yavapai Apache have completed registration of their grazing districts with individual Premises ID Numbers. The Tohono O'odham Nation has started the process of getting premises identification numbers for their members.

ADA continues to work with county Cattlemens' Associations by conducting outreach to educate cattle owners on the merits of the Animal Disease Traceability System. ADA assists those that are willing to use Animal Disease Traceability System compatible animal identification tags and track them through auction markets. Success stories have helped to educate other producers and motivate some to participate in the program.

Annual Licenses

Aquaculture

The aquaculture program regulates commercial operations that grow, transport and process fish and shrimp. Numbers of licenses issued: transporters (20), processors of fish and shrimp for human consumption (7), growing facilities (15), research and educational facilities (6), and operations that charge a fee for fishing (6).

Feedlots

Twenty-five licenses for feedlots (required by those with capacity of greater than 500 head) were issued.

Inspection Data Tracking

The Livestock Inspection Program tracks field activities with the dispatch Agricultural Incident Reporting System. Since 2002, a number of activities have been closely monitored and include such items as the number of inspections for health, the movement of range cattle, cattle for processing, the number of investigations for animal care issues, stray animals / animals-at-large, and livestock theft.

Surveillance Statistics

Currently, over 2,600 producers are approved to use self-inspection. Livestock owners understand the value of documenting animal movement and have accepted responsibility for intrastate documentation through self-inspection. AHWP officers, inspectors and deputies document sales and interstate movement of range cattle, and movement of cattle to custom exempt slaughter plants. The sheep, goat and swine industries continue to support the inspection statute and rules governing their respective species. Exhibitions, fairs and shows have also been supportive of the "seasonal exhibition pass" implemented by rule. Livestock theft investigation and enforcement cases remain at a low level, and Arizona continues to maintain disease free status in all industry / state / federal cooperative disease control programs.

Livestock Import Summary

CLASS OF LIVESTOCK	NUMBER OF IN SHIPMENTS	TOTAL ANIMALS
Dairy Cattle Replacements	399	33,229
Beef Cattle	3,142	313,168
Swine	271	4,691
Sheep and Goat	412	42,025
Horses	6,498	11,898
Fish and Shrimp	126	unavailable

Field Investigations and Inspections Summary

Category Name	Total number
Health and Movement Inspections	5,391
Butcher Inspections	1,407
Animal Care Investigations	1,972
Animals-at-Large Investigations	1,336
Self-inspection certificates issued	25,320
Theft Investigations	47

Arizona Livestock Incident Response Team Program

The Arizona Livestock Incident Response Team (ALIRT) program was implemented through legislative authorization in FY 2005. Annual funding secured by the efforts of the Arizona Cattle

Growers' Association has been used to train and equip participating private veterinarians to conduct investigations of unusual livestock disease events, and to conduct outreach and education to the livestock producers. Since its initiation, several investigations have been conducted and in every case, the response resulted in a preliminary diagnosis within 48 hours, with laboratory diagnosis confirmation soon after. ALIRT is an emergency response program overseen by ADA and implemented through cooperation with the University Of Arizona Department Of Animal Science, and the Department of Veterinary Science Veterinary Diagnostic Laboratory. USDA Wildlife Service and Veterinary Service actively participate in a program designed to facilitate the potential diagnosis of unexplained cattle losses. Once a problem has been discovered, various levels of response may be indicated. It all starts with the producer, local veterinarian and/or the local University of Arizona Cooperative Extension Office. If warranted, trained ALIRT private veterinarians will respond to the scene, start the investigation, and collect samples. This is followed by a conference call of the ALIRT steering committee that determines what, if any, additional actions are necessary. The cost of case work-up is covered by ALIRT program funding, and includes expenses for the ALIRT private veterinarian, other response personnel, as well as laboratory expenses related to the diagnosis. Once a diagnosis is made, and/or a treatment program is implemented, the expense becomes the responsibility of the producer. The producer plays a key roll in this process, starting with the reporting of a problem in his herd. The producer also is important in preparing a herd history and identifying any contributing factors that may assist in diagnosis. The ALIRT program only responds at the invitation of the owner or manager and is available to individual producers who have significant unexplained animal illnesses and/or death, or if an area or region is having multiple suspicious livestock losses. The ALIRT program was designed for the producer and all information collected remains confidential. Emergencies are reported by calling the Arizona State Veterinarian Hotline at 888-745-5334 or the University of Arizona Veterinary Diagnostic Laboratory at 520-621-2356.

Citrus, Fruit & Vegetable (CFV)

Standardization and Federal State Inspection

Arizona ranks third in the nation for overall production of fresh market vegetables. Arizona acreage produced over 90 million cartons of fresh produce last year. Arizona ranks second in the nation in production of iceberg lettuce, leaf lettuce, romaine lettuce, cauliflower, broccoli, spinach, cantaloupes, honeydews, and lemons.

The top ten commodities, which account for 85% of the states total produce production, based on carton count for fiscal year 2010 are as follows:

Iceberg lettuce	23,065,871	Spinach	4,472,235
Romaine lettuce	14,856,102	Broccoli	4,382,252
Cantaloupe	11,900,634	Tomatoes	3,789,748
Spring Mix	4,665,318	Watermelon	3,594,327
Leaf lettuce	4,596,629	Cauliflower	2,585,475

As detailed below, the Citrus, Fruit and Vegetable Standardization Program and the Federal State Inspection Program conducted 25,868 inspections last year. In addition, the Citrus, Fruit and Vegetable Standardization Program issued 527 licenses to the produce industry.

Industry Funded -- Industry Supported

Both of these programs are entirely self-funded and receive no general fund allocations. Industry supports the Citrus, Fruit and Vegetable Standardization Program through license fees and carton assessments, which are reviewed monthly and adjusted yearly. The Federal State Inspection Program is entirely funded on a fee-for-service basis.

The Citrus, Fruit and Vegetable Advisory Council, by statute, is comprised of governor-appointed citrus producers from specified counties, fruit or vegetable producers from specified counties, an iceberg lettuce producer from Yuma County and an Arizona apple, grape, or tree fruit producer. This group of leaders of their respective industries meets quarterly with staff of the Citrus, Fruit and Vegetable Program to review program policy and budgetary items.

Standardization Program

Arizona citrus, fruit and vegetable producers rely on the Arizona Department of Agriculture for increasing the potential for domestic and international marketing, protecting against exporting, importing, selling of substandard produce through the development and enforcement of uniform standards. It is the Citrus, Fruit and Vegetable Standardization Program (CFV) that assists the Arizona produce industry, including growers, shippers, contract packers, dealers and commission merchants in complying with product quality standards.

Federal-State Inspection Program

This year the Citrus, Fruit and Vegetable Standardization Program successfully completed its eleventh year managing the Federal State Inspection Service, Fresh Produce Inspection and Terminal Market Programs in Nogales, Phoenix, and Yuma under a cooperative agreement with United States Department of Agriculture. Mandatory as well as voluntary United States Department of Agriculture inspections are performed by Arizona Department of Agriculture staff (federal state inspectors) and take place primarily at the shipping point (point of origin), port-of-entry (Arizona-Mexico border) or the terminal market (point of destination).

This federal program administered by the department also enforces United States import requirements and marketing order restrictions at the international border between Arizona and Mexico. Significantly, Nogales is the second busiest port-of-entry for produce in the United States. Last year, department staff inspected more than 8.3 million packages of tomatoes and 12.9 million lugs of table grapes imported from Mexico and a variety of other commodities, including watermelons, peppers, cucumbers, squash, onions and citrus.

It is important to note that the Citrus, Fruit and Vegetable Program and the Shipping Point Inspection Program in Yuma and Phoenix developed cost-reduction efficiencies for Arizona's agriculture industries through the cross-training of department inspectors to handle both state and federal inspections as well as phytosanitary certifications.

Third Party Audit Program

At the request of Arizona fresh produce industry representatives, Arizona Department of Agriculture, along with other western State Departments of Agriculture and the United States Department of Agriculture, developed a Third Party Audit Program within the existing framework of USDA Agricultural Marketing Service Federal State Inspection. The resulting program is designed to audit the Good Agricultural Practices and Good Handling Practices for the produce industry. Federally licensed state inspectors perform these audits at industry's request.

Arizona Leafy Green Products Shipper Marketing Agreement (AZ LGMA)

In September 2007 Arizona farmers came together to raise the bar for food safety. The produce industry solicited for the first Marketing Agreement in the history of the Arizona Department of Agriculture. As a result the Arizona Leafy Green Products Shipper Marketing Agreement (AZ LGMA) was formed.

The general purpose of this Marketing Agreement is to enable shippers of leafy green products to engage in mutual help and continue the production of high quality leafy green products grown in this State. The primary purpose of this Marketing Agreement is to authorize signatory shippers to certify safe handling, shipment and sale of leafy green products to consumers by adopting leafy green best practices and by using an official mark. The Marketing Agreement will permit the advertisement and promotion of the use of the official mark and the education of consumers about the meaning of the official mark.

Members of the AZ LGMA are working collaboratively to protect public health by reducing potential sources of contamination in Arizona-grown leafy greens. Leafy green products of the AZ LGMA include: iceberg lettuce, romaine lettuce, green leaf lettuce, red leaf lettuce, butter lettuce, baby leaf lettuce (i.e., immature lettuce or leafy greens), escarole, endive, spring mix, spinach, cabbage, kale, arugula or chard.

Assessments on signatories to the Arizona Leafy Green Products Shipper Marketing Agreement are based on cartons or carton equivalents of affected commodities sold. Shipper means a person that engages in shipping, transporting, selling or marketing leafy green products under his or her own registered

trademark or label or a person who first markets the leafy green products for the producer. It does not mean a retailer.

Currently the AZ LGMA has 38 signatory shippers that represent 96% of the volume leafy greens grown in Arizona. AZ LGMA membership requires verification of compliance with the accepted food safety practices through mandatory government audits. University and industry scientists, food safety experts and farmers, shippers and processors developed these food safety practices. These companies have committed themselves to sell products grown in compliance with the Arizona Metrics, food safety practices accepted by the AZ LGMA Marketing Committee.

Department Pride in the Statewide Gleaning Project

The Arizona Statewide Gleaning Project harvests surplus crops and the governor's project distributes these gleaned crops to those in need. The Arizona Department of Agriculture plays an integral role in the statewide gleaning effort in that Citrus, Fruit and Vegetable Standardization Program inspectors notify key food bank officials of upcoming seasons, and identify potential crop donations. Participating producers are then able to donate surplus crops, instead of discarding them, by allowing volunteers, inmate labor and food bank staff to glean their fields. Several state agencies support other portions of the program and this combined effort resulted in over 20 million pounds of produce collected and distributed to food banks and other organizations serving those in need during this past year.

Agricultural Consultation and Training (ACT)

The Agricultural Consultation and Training Program is an innovative compliance assistance program unique to an agricultural regulatory agency. This program embraces the Arizona Department of Agriculture's (ADA) goal of encouraging farming, ranching and agribusiness, while protecting consumers and natural resources by utilizing a non-enforcement approach. ACT is not affiliated with any of ADA's enforcement programs, allowing staff members to provide a formal means by which the regulated agricultural community may request compliance assistance without regulatory intervention. Agricultural Consultation and Training serves Arizona's diverse agricultural community by promoting agriculture, conducting training and increasing voluntary compliance and awareness of regulatory requirements and providing agricultural conservation education through the following compliance assistance and education programs:

- Pesticide Safety
- Air Quality
- Agricultural Conservation Education

The Agricultural Consultation & Training Program also houses the following programs:

- Livestock & Crop Conservation Grant Program
- Specialty Crop Block Grant Program
- Arizona Citrus Research Council
- Arizona Iceberg Lettuce Research Council
- Arizona Grain Research and Promotion Council
- Agricultural Employment Relations Board
- Arizona Agricultural Protection Commission

Pesticide Safety Compliance Assistance

The Environmental Protection Agency's (EPA) Worker Protection Standard (WPS) is designed to reduce the risk of pesticide exposure to pesticide handlers, agricultural workers and the environment. The WPS includes requirements for pesticide safety training, notification of pesticide applications, use of personal protective equipment, restricted entry intervals following pesticide application, decontamination supplies and emergency medical assistance. Staff of the Agricultural Consultation and Training (ACT) program assist growers in complying with federal and state Worker Protection Standards by providing pesticide safety training for pesticide handlers and agricultural workers, developing pesticide information resources in English and Spanish, and performing mock inspections to assist farm and nursery owners in complying with pesticide regulations.

Pesticide Safety Training

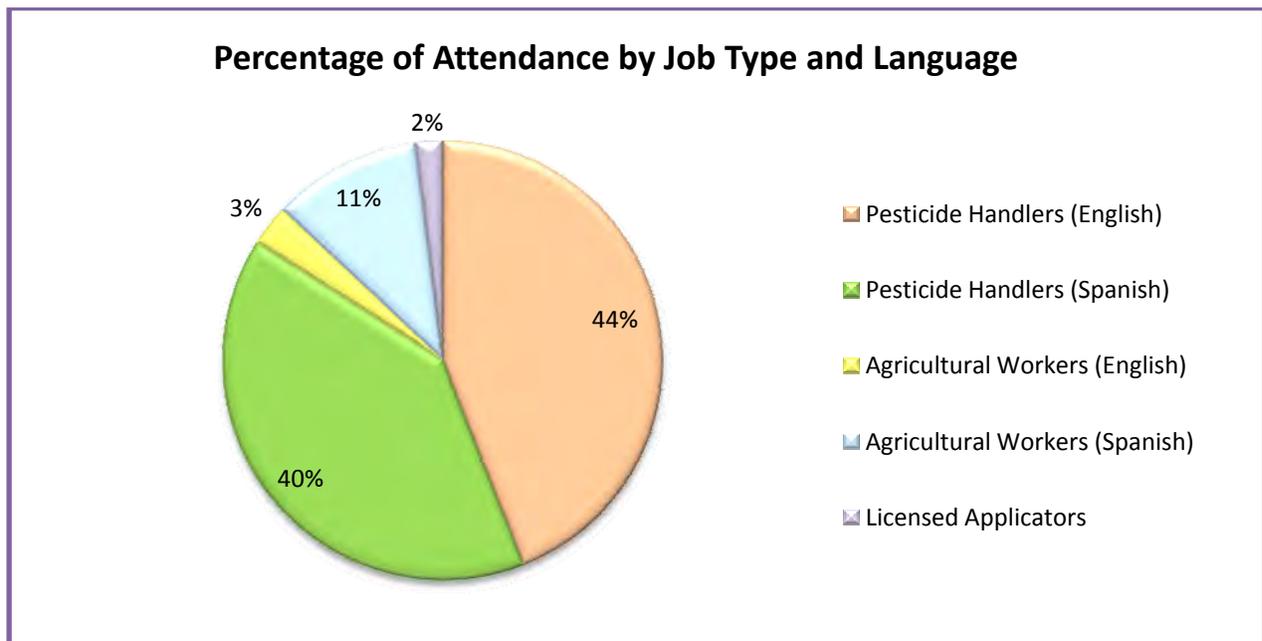
Among the popular services provided by ACT staff are free pesticide safety training courses for pesticide handlers who work directly with pesticides while mixing, loading, and applying agrichemicals, and agricultural workers who perform tasks such as pruning, harvesting and irrigating crops.

Pesticide safety training course attendees learn how to work safely around pesticides or in areas where pesticides have been applied, and are taught the steps to recognize, respond to, and prevent pesticide exposure. Agricultural employees who possess this knowledge can reduce their risk of pesticide-related illnesses and injuries at the worksite.

The training courses are provided in English and Spanish and are open to anyone who would like to attend. The courses are also promoted to safety trainers who want to observe a training to gather ideas for their own sessions and growers who would like to learn more about state and federal laws pertaining to pesticide safety. Licensed and certified pesticide applicators may also attend to receive two hours of continuing education toward the renewal of their license.

During fiscal year 2010, ACT staff presented pesticide safety training to 414 people who were employed at 61 agricultural operations throughout Arizona. As is noted in the following chart, 84% of the people who attended the training were pesticide handlers, 14% were agricultural workers, and 2% were licensed pesticide applicators.

Of the unlicensed pesticide handlers, 182 attended a two-hour pesticide safety course in English and 165 attended the same course in Spanish. Ten licensed applicators participated in the two-hour course and 57 people attended a one-hour pesticide safety course designed for agricultural workers. Agricultural workers perform tasks such as weeding, irrigating, and harvesting crops in areas where pesticides have been applied in the previous 30 days. Thirteen of the 57 agricultural workers who attended this training received the information in English and 44 received the information in Spanish. The following chart shows the percentage of attendance in each type of training.



Joint Pesticide Safety Train-the-Trainer Workshops

The Arizona Department of Agriculture's (ADA) Agricultural Consultation and Training Program continued their partnership with pesticide safety instructors from ADA's Environmental Services Division, Environmental Protection Agency in Region 9, California Department of Pesticide Regulation, the Colorado River Indian Tribes, the Fort Yuma Quechan Indian Tribe and the State Plant Health Committees of Guanajuato and Sonora, Mexico (CESAVEG), to present multi-jurisdictional pesticide safety train-the-trainer workshops. As a result of this collaboration, the "Joint Train-the-Trainer Workshop for Pesticide Safety Educators in Arizona, California, Mexico and Tribal Communities" was presented in Brawley, California in October 2009 and in Yuma, Arizona in April 2009.



Workshop attendees put on the personal protective equipment listed on a sample pesticide label during a workshop session activity.

A total of 87 people representing farms, nurseries, farm worker outreach projects, health clinics, tribal pesticide programs, insurance companies, universities, food safety programs, and regulatory agencies became qualified to train agricultural field workers and pesticide handlers through the workshops.

The two-day workshops were designed to increase knowledge on human and environmental health issues when working with pesticides and steps to reduce exposure to agrichemicals. Important pesticide safety and health information such as pesticide label comprehension, personal protective equipment, environmental protection, health issues and pesticide emergency response were included.

A variety of hands-on training techniques and group activities were used throughout the courses to demonstrate ways to extend pesticide safety information to pesticide handlers and agricultural fieldworkers. Participants also received an overview of the Workers Protection Standard and learned about pesticide laws and regulations that are unique to Arizona, California, Mexico and local tribal communities.

The workshops have served the informational and resource needs of pesticide safety educators who work in the border regions of California/Baja and Arizona/Sonora, Mexico, as well as those who travel with their companies and are responsible for training agricultural employees in multiple jurisdictions. Project team members will continue this collaborative project by offering the final course in San Diego, California in July 2010. Funding for the workshop series has been provided to ACT through a technical assistance agreement with the Environmental Protection Agency, Region 9, Border 2012 Program.

Pesticide Safety Teaching Tools, Informational Resources, and Training Modules

ACT staff develops new and adapts existing teaching tools, informational resources, and training modules for use during safety events and for distribution to agricultural employers, employees, health care professionals, and people who are responsible for extending pesticide safety information.

In fiscal year 2010, ACT staff partnered with Extension Specialists from the University of Arizona Cooperative Extension Service to provide pesticide applicator pre-certification courses. The courses were designed to prepare attendees to take the national pesticide applicator's core exam, which was administered at the end of the day. Session topics included pest management, application equipment calibration, pesticide product label comprehension, environmental protection, emergency preparedness, and health impacts of pesticide exposure.

Over 80 people attended the courses, which were presented in Flagstaff, Tsaille, Kingman and Casa Grande. Sixty people took the core exam and the remaining twenty people attended the course to either learn more about the safe and effective use of pesticides or to acquire continuing education credits



Attendees at the course at Diné College in Tsaille, Arizona participate in hands-on activities and discussion about ways to protect the environment when working with pesticides.

toward the renewal of their applicator's license. Seventy-eight percent of the test takers passed the exam.

In addition to developing training modules, ACT staff serves on national and regional pesticide safety resource review teams and committees. During FY 2010, the American Association of Pesticide Safety Educators asked ACT pesticide program staff to review and edit an article submitted to the Journal of Pesticide Safety Education. ACT staff was also invited to serve on the external advisory committee for the Western Center for Agricultural Health and Safety. The Center is located at the University of California in Davis and is dedicated to the understanding and prevention of illness and injury in western agriculture.

Air Quality Compliance Assistance

Regulated Agricultural Best Management Practices

The Regulated Agricultural Best Management Practices (RABMP) program has completed its seventh year of providing air quality compliance assistance to Arizona's agricultural community. The RABMP program provides a means by which Arizona's agricultural community can request compliance assistance without incurring regulatory intervention for applicable federal, state and local regulation.

The RABMP program goal is to provide the regulated agricultural community with the necessary resources to achieve compliance with applicable air quality standards. Through innovation and enhanced outreach and education, the program is projecting increases in the number of individuals reached. This growth is due to joint on-site visits with ACT's Pesticide and Worker Protection program and outreach to Yuma and Pinal counties.

The air quality program staff regularly participates in local air quality stakeholder's meetings such as:

- EPA Region IX Best Achievable Control Measures (BACM)
- ADEQ's Regional Haze and Natural Events meetings
- Maricopa County rule 310 and 310.01 public process
- Maricopa County Association of Governments (MAG) Air Quality Technical Committee Meetings for the EPA 5% reduction of particulate matter (PM10) plan
- Pinal County PM10 reduction stakeholder group
- Yuma County stakeholder groups for the Ag BMP program
- Governor's Agricultural Best Management Practices Committee Technical Work Group

The federal Clean Air Act requires that air pollutant emissions be controlled from all significant sources in areas that do not meet the national ambient air quality standards. Air quality regulation for agricultural dust requires farmers and nurserymen in certain parts of Arizona to implement agricultural best management practices (BMPs) to help reduce air pollution, especially particulate matter (PM10). Agricultural BMPs are feasible and effective practices that have been evaluated for their efficiency, applicability, likelihood for implementation, and adopted into state regulation.

Examples of BMPs include:

- Limiting farming activities during high- wind events thereby reducing the transport of PM10.
- Planting multi-year crops, helping to protect the soil surface from erosive winds.



Gravel pad used as a Track-out control system.

- Using an irrigation management system that conserves water, which reduces weeds and results in less soil compaction and need for tillage.
- Restricting public access to unpaved roads, which reduces the area's susceptibility to PM10.
- Combining tractor operations that reduce the number of passes on a field and the amount of soil disturbed.
- Surface roughening or the formation of clods, which helps to disrupt the erosive force of the wind over an unprotected soil surface.
- Using a track-out control system, helping to remove mud and soil from tires of farm equipment before they enter a paved public road.

Outreach and education is provided to Arizona's agricultural community about air quality in an effort to reduce regional dust pollution through:

- On-site visits to farms and nurseries to make site specific assessments and recommendations that can ensure compliance with air quality regulations. These visits include discussions of the Ag BMP program and the BMPs available for tillage and harvest, non-cropland, and cropland categories. For fiscal year 2010 there were 210 visits made to producers to promote the program.
- Agricultural BMP training for farm workers includes the various techniques that employers can use to comply with state and local regulations and the different ways field workers can get involved in reducing agricultural air pollution. A video is provided during training, in English and Spanish, which explains how dust affects our health, where agricultural dust can come from and what to do if excessive dust is reported to a regulatory agency. In fiscal year 2010 there were 19 trainings, presentations, and promotions of the program to agricultural workers and representatives. Outreach and training reached 2,404 participants.
- Faxing high wind advisories to the regulated agricultural communities of Maricopa and Yuma counties. This notification system alerts the producer to possible PM10 exceedances and stagnant air conditions. During these forecasted conditions, producers are encouraged to implement their dust control action plans. During fiscal year 2010, eight forecasts were sent to 173 producers in Maricopa and Yuma Counties.
- Providing "Fly in the Eye – Air Quality in Action", a quarterly air quality newsletter to the agricultural community. This newsletter features articles on air quality issues impacting all areas of agriculture in all parts of the state, a "Featured BMP" column, and contact information to obtain agricultural air quality information or to schedule an on-site visit. In fiscal year 2010 newsletters were sent to 875 stakeholders in Maricopa, Yuma, and Pinal Counties.
- Publication of various articles and ads in industry periodicals, providing information on updates in air quality regulations, agricultural dust during high wind events and changes in the RABMP program. In fiscal year 2010, twelve articles were published with a readership of 9,761 people.
- Agency collaboration. The air quality program worked with other agencies such as Arizona Department of Environmental Quality (ADEQ) and county farm bureaus to address compliance issues needing correction. These include public complaints, track-out issues, and violations. During fiscal year 2010, six issues were corrected.



Signs being used to restrict access in Yuma.

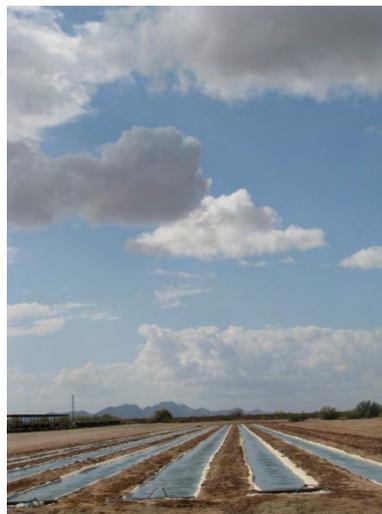
New this past year is the passing of Senate Bill 1225 which expands the Ag BMP program to include beef cattle, dairy, poultry, and swine facilities within a PM10 nonattainment area statewide. The Governor's Best Management Practices Committee has developed and is evaluating new BMPs for these industries. After these new BMPs are approved in FY11, new outreach material will be created.

In 2005 the Yuma Ag BMP program was implemented to address the PM10 problem in Yuma County, but no

outreach materials were available. Outreach to the community began in fiscal year 2010 to promote agriculture's proactive approach to addressing the PM10 problem in Yuma County. Meetings with stakeholder groups such as the county farm bureaus, local irrigation districts, and the Natural Resource Conservation Districts were held to discuss and promote the program. Staff participated in networking and outreach opportunities at the Yuma Ag Summit in March 2010. Visits were also made to producers to promote the Air Quality Program and to answer questions.

Agricultural Conservation Education Program

In September 2002, the Arizona Department of Agriculture's (ADA) Agricultural Consultation and Training Program (ACT) began assisting the agricultural community through a partnership with the United States Department of Agriculture's, Natural Resource Conservation Service (NRCS). Since its inception this partnership has evolved into the Agricultural Conservation Education Program (ACEP). The ACEP coordinator assists agricultural producers in the protection of the environment through compliance assistance outreach and education and to conserve the State's natural resources through Conservation Technical Assistance (CTA). The program coordinator also assists producers in the design and implementation of conservation practices with cost share assistance from Farm Bill Programs through NRCS.



The conservation of natural resources is achieved through CTA, which provides technical assistance, including direct conservation planning, design, and implementation assistance, that helps farmers plan and apply conservation practices on the land. This assistance is provided to agricultural producers as well as individuals, groups, and communities who make natural resource management decisions on private, tribal, and other non-federal lands.

The NRCS assists the Natural Resource Conservation Districts (NRCD) with meeting their conservation goals. The ACEP coordinator generally works out of the NRCS Avondale Field Office which supports the majority of Maricopa County and four NRCD offices: Agua Fria/New River, Buckeye Valley, Gila Bend, and Wickenburg. The resource concerns addressed with the 2010 EQIP applications include Air Quality, Domestic Animals and Wildlife, Plant Condition, Soil Condition and/or Erosion, and Water Quality and Quantity. The ACEP coordinator works directly with the NRCS Environmental Quality Incentives Program (EQIP) which provides voluntary conservation programs for farmers and ranchers that promote agricultural production and environmental quality.



EQIP offers financial and technical help to assist participants to install and implement structural and management practices on eligible agricultural land. Currently, the ACEP coordinator is assisting NRCS with multiple EQIP and WHIP plans including ten contracts for 2008, 21 for 2009 and 31 for 2010. The total acres under conservation contracts for 2009 are 353,664.10. The acreage under contract for 2010 is 11,445.30. Of the Avondale Field Office's 31 EQIP and WHIP contracts for federal fiscal year 2010, the ACEP coordinator is directly responsible for the management of eight contracts

totaling 4590.9 acres of cropland and wildlife areas. Those EQIP contracts are being implemented to improve air quality while the WHIP contracts are for the development of wildlife habitats that will surround cropland.

The ACEP coordinator continues to assist the NRCS Avondale Field Office with project and status reviews, soil loss evaluations and administrative management of EQIP contracts for federal fiscal years 2003, 2004, 2005, 2006 and 2007 totaling 64,765 acres.

The ACEP coordinator also directly assists CAFO owner/operators with meeting state and federal water quality regulations. Utilizing the resources through NRCS, the ACEP coordinator can further help CAFO producers by developing Comprehensive Nutrient Management Plans, completing soil tests for compaction and permeability, and assisting with the development of structural practices for waste water utilization.

Educational Outreach through the Multi-Agency CAFO Education Group

The ACEP coordinator meets compliance assistance goals through outreach opportunities which include the CAFO Education Group. The CAFO Education Group is a collaborative project between producer organizations and state and federal agencies committed to providing education and compliance assistance to Arizona's Concentrated Animal Feeding Operations (CAFO). Members include representatives from the Arizona Cattle Growers Association, United Dairymen of Arizona (UDA), Arizona and Maricopa County Farm Bureaus, NRCS, Environmental Protection Agency (EPA) Region 9, several Natural Resource Conservation Districts, University of Arizona Cooperative Extension, ADEQ and ADA. ACEP chairs the CAFO Education Group and facilitates quarterly meetings.



During fiscal year 2010, ACEP and the Association of State and Interstate Water Pollution Control Administrators co-hosted the CAFO Roundtable in Arizona. The three day event gathered regulating agencies, compliance assistance programs, key water quality members from EPA and NRCS from around the nation to meet and discuss the current status of regulations and the steps their programs are taking to ensure success. This event was made possible by the support of the following collaborators and sponsors: Agri-Business Council of Arizona, Arizona Cattle Feeders Association, Arizona Department of Agriculture, Arizona Department of Environmental Quality, Arizona Farm Bureau,

Arizona Pork Council, Association of State and Interstate Water Pollution Control Administrators, United Dairymen of Arizona, USDA NRCS and EPA.

Further educational outreach provided by ACEP includes maintaining and updating [The CAFO Ready Reference Guide](#). This concise guide is a collection of information from the various county, state, and federal agencies that regulate and/or offer compliance programs for Arizona's CAFOs. Other outreach is conducted by answering producer and consumer questions and providing information through letters, emails, faxes and phone calls.

Livestock & Crop Conservation Grant Program

The Livestock & Crop Conservation Grant Program (LCCGP) was created on September 18, 2003, by the Arizona State Legislature to assist ranchers and farmers with the implementation of conservation projects that ultimately provide for the preservation of open space. The Arizona Department of Agriculture is

charged with developing, implementing and managing the program. The LCCGP is funded through the Proposition 303 Growing Smarter Statute that was passed by public referendum in 1998. Approximately \$1.8 million is available in grant funds each year, through fiscal year 2011.

Per the grant program authorizing statute, A.R.S. §41-511.23 (G) (1), eligible applicants include individual landowners and grazing and agricultural lessees of state or federal lands that desire to implement conservation based management alternatives using livestock or crop production or reduction practices to provide wildlife habitat or other public benefits that preserve open space. Grant funds may be used for projects taking place on private, State and Federal land. Currently, the grant program is run on a biennial grant cycle.



During the two-year cycle, the LCCGP grant manual, grant guidelines, and rating criteria are subject to a public comment period. The third grant cycle was completed in fiscal year 2009. During fiscal year 2010, preparations began for the next grant cycle to be conducted at the beginning of fiscal year 2011. Since fiscal year 2011 is the last year that funds for the grant program will be available under the current authorizing statute, the fiscal year 2011 grant cycle will be the final grant cycle of this program.

During fiscal year 2010, ACT personnel worked to establish contracts with those who were awarded grant funding during the fiscal year 2009 grant cycle. The following types of projects were started, and many completed by grantees with funding from the fiscal year 2009 grant cycle:

- Utilization of funds as match / cost share to other conservation grants. For example, if the applicant is participating in, or plans to apply for, a USDA NRCS EQIP grant which typically requires that the applicant provide a percentage of the total project funding, LCCGP funds could be awarded for use as the required cost share funds to the EQIP contract.
- On-the-Ground Conservation Projects (for example: riparian fencing, water resource development, grassland restoration).
- Livestock deferment funding in relation to a conservation practice or project. For example, if the applicant chooses to implement a conservation management practice such as prescribed burning or herbicide application that requires the deferment of livestock, the applicant may apply for LCCGP funds to cover the costs associated with deferring livestock.



their contracted projects.

The LCCGP coordinators have continued to promote the program, as well as administer the existing grant contracts from the fiscal year 2005, 2007 and 2009 grant cycles. Throughout the duration of the grant project, the LCCGP Coordinator provides administrative support and information, answers questions and concerns and assists the grantee with reimbursement and funding advance requests. At the close of FY10, 45 of the 56 grantees from the fiscal year 2005 cycle, 43 of the 70 grantees from the fiscal year 2007 cycle and 18 of the 63 grantees from the fiscal year 2009 cycle have completed their proposed grant projects. Additionally, throughout fiscal year 2010, over \$3.1 million was disbursed to grantees to work on

Throughout fiscal year 2010, ACT personnel have participated in various stakeholder meetings and conferences to promote the grant program. Meetings include the United States Department of Agriculture – Natural Resources Conservation Service (USDA-NRCS) State Technical Advisory Committee meetings, the Arizona Association of Conservation Districts annual meeting, the Arizona Cattlemen's Association annual meeting and the Arizona Farm Bureau annual meeting.

ACT personnel also continue to monitor projects funded by grant funds. Through on site visits to see what has been completed, they are able to ensure that the funding is being utilized properly and provide additional technical services to grantees.

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An LCCGP grantee near Payson addressed water needs by installing additional water troughs to provide a water source for wildlife, as well as livestock. The rocks piled by the trough and the metal grate in the trough allow small wildlife to access the water without the risk of falling in and drowning.

Specialty Crop Block Grant Program-Farm Bill

On December 21, 2004, the Specialty Crops Competitiveness Act of 2004 authorized the USDA to provide state assistance for specialty crops. Under Section 101 of the statute, the Secretary of Agriculture is directed to “make grants to States for each of the fiscal years 2005 through 2009 to be used by State departments of Agriculture solely to enhance the competitiveness of specialty crops.” The Food, Conservation, and Energy Act of 2008 (Farm Bill) amended the Specialty Crops Competitiveness Act of 2004. Under the amended Act, the Secretary of Agriculture is directed to make grants to States for each of the fiscal years 2008 through 2012 (referred to as the Specialty Crop Block Grant Program – Farm Bill or SCBGP-FB) to be used by State departments of agriculture to enhance the competitiveness of specialty crops. Specialty crops are defined as fruits, vegetables, tree nuts, dried fruits, and nursery crops (including floriculture). The value of U.S. specialty crops is equivalent to the combined value of the five directly subsidized program crops. However, sixty percent of all farmers do not raise program crops and do not receive direct subsidies. The



purpose of this act is to help address this inequity between program crops and specialty crops.

The Arizona Department of Agriculture's Specialty Crop Block Grant Program - Farm Bill is administered by the ACT program. In fiscal year 2009, Arizona's State Plan was approved by the U.S. Department of Agriculture's Agricultural Marketing Service (AMS), and a cooperative agreement, which provided \$1,113,922.37 in grant funds to the ADA, was executed on October 19, 2009. ACT personnel worked with subcontractors to execute contracts, and provide guidance and assistance with quarterly reports and quarterly reimbursements.

On January 28, 2010 AMS announced the availability of \$55 million in federal fiscal year 2010 funding. Each state department of agriculture is eligible to receive a base grant of \$181,210. In addition, AMS allocated the remainder of the grant funds based on the proportion of the value of specialty crop production in the state. The 2010 base grant amount plus the AMS assigned value of specialty crop production for Arizona is \$1,166,388.43. ACT staff is currently working on a state plan for submission to AMS by the July 29, 2010 deadline.



Arizona Citrus Research Council



The Arizona Citrus Research Council was created by A.R.S. §3-468 to support the development of citrus research programs and projects within the Arizona citrus industry. The Council is funded by a per carton (1.5 cents) assessment paid by Arizona Citrus producers. Last year, the Arizona citrus industry produced more than 2.4 million cartons of grapefruits, lemons, oranges and tangerines. Council programs and projects target production, plant pest and disease control, efficient fertilization and irrigation techniques and variety development. The Council is comprised of five citrus producers

appointed by the Governor:

- Two producers from district one (including Yuma County)
- One producers from district two (Maricopa, Pima and Pinal Counties)
- Two producers at large

The Council's assessment was set to zero for fiscal year 2010. Due to a court decision in favor of the Council in the lawsuit against the State regarding the fiscal year 2008 fund sweeps, the Council approved an increase in their fiscal year 2011 assessment back to 1.5 cents per carton beginning July 1, 2010. The revenue reported below was carry-over assessment revenue from fiscal year 2009.

Fiscal Year 2010 Financial Status - Arizona Citrus Research Council

Revenue	\$20,788.52
Expenses	\$ 6,085.00

Arizona Iceberg Lettuce Research Council



The Arizona Iceberg Lettuce Research Council was created by A.R.S. §3-526 to conduct research for an Arizona industry that produces more than 21 million cartons of iceberg lettuce annually. The Council is funded by a per carton (.004 cents) assessment paid by Arizona iceberg lettuce producers. Council members are appointed by the Governor and consist of seven producers:

- Four producers from district one (including Yuma and La Paz Counties)
- Three producers at large

The Council reviews and awards a wide range of research proposals on topics such as variety development, lettuce pest eradication, and for programs relating to food safety, production, harvesting, handling and transporting lettuce from fields to markets. During fiscal year 2010, the Council did not approve any new funding, but continued to support research projects already funded. Some examples of research grant projects include the development of effective management tools for lettuce disease, insect management for desert lettuce, a preliminary assessment of microbial risk to lettuce from canine waste on canal banks, improved phosphorus fertilization practices of desert lettuce, and a survey of coliform and fecal bacteria in irrigation canal waters.

Due to a court decision in favor of the Council in the lawsuit against the State regarding the FY 2008 fund sweeps, the Council approved an increase in their fiscal year 2011 assessment back to .004 cents per carton beginning July 1, 2010.

Fiscal Year 2010 Financial Status-Arizona Iceberg Lettuce Research Council

Revenue	\$44,743.69
Expenses	\$ 7,087.42

Arizona Grain Research and Promotion Council



The Arizona Grain Research and Promotion Council was created by A.R.S. §3-581 through §3-594 and utilizes grower 'check-off funds' to aid in marketing wheat and barley, participate in research projects and other programs that assist in reducing freshwater consumption, develop new grain varieties and to improve grain production, harvesting and handling methods.

Research continues to be a top priority of the Council by continuing support for the research activities of the University of Arizona. Research projects focus on the improvement of phosphorus fertilization in Desert Durum[®], responses of other wheat and barley varieties to phosphorus fertilizer, low-cadmium durum wheat varieties, as well as, labor assistance for the Arizona Meteorology Network. Annually, the council funds the small grain variety test trials used by producers to evaluate the varieties available. Nearly \$40,000 was spent on research projects during fiscal year 2010.

The Council supports the activities of the U.S. Wheat Associates, the export market development arm of the United States wheat industry. This support is important because more than half of Arizona's durum wheat is exported. The council collaborates with the California Wheat Commission to conduct an annual crop quality survey of the Desert Durum[®] crop in Arizona and Southern California and publishes the results for buyers around the world.

Fiscal Year 2010 Financial Status - Arizona Grain Research and Promotion Council

Revenue	\$139,223.96
Expenses	\$133,988.15

Agricultural Employment Relations Board



The Agricultural Employment Relations Board (AERB) was created by A.R.S. §23-1386 in 1993 to provide a means to bargain collectively that is fair and equitable to agricultural employers, labor organizations and employees, to provide orderly election procedures, to resolve questions concerning representation of agricultural employees and to declare that certain acts are unfair labor practices that are prohibited and that are subject to control by the police power of this state. The Board has an annual budget of \$23,300.

The Board is comprised of seven members (and two alternates):

- Two agricultural employers/management
- Two organized agricultural labor representatives
- Three public members, from which a Chairman must be selected.

The Board meets at least once per year or as necessary. The Board met twice in fiscal year 2010.

Arizona Agricultural Protection Commission



The Arizona Agricultural Protection Commission was established by the Arizona Agricultural Protection Act (AAPA), A.R.S. §3-3303, effective August 22, 2002. The commission's purpose is as follows: make recommendations to the director of the Department of Agriculture for the adoption of rules necessary for the commission to perform its duties, advise the department with respect to grants awarded and contracts entered into pursuant to the Arizona Agricultural Protection Act, solicit and accept donations including donations for the sole purpose of administering the Arizona Agricultural Protection Program, annually elect a Chair and Vice-Chair from

among its members, advise the director and submit recommendations relating to the monitoring of agricultural easements established pursuant to the AAPA, and prepare an annual report of its activities.

The Arizona Agricultural Protection Act did not provide funding for the Commission. From October of 2003 to September of 2006, the ADA entered into annual agreements with the United States Department of Agriculture Natural Resources Conservation Service (USDA/NRCS) to provide funding for the administrative support to the Commission. In FY07 and FY08, administrative costs were covered by a combination of industry donations and ADA non-appropriated funds. In fiscal year 2009, Arizona State Parks contributed \$15,000 to the Ag Protection Fund to help defray administrative costs. The Commission has not met since September, 2008.

State Agricultural Laboratory (SAL)

The Arizona Department of Agriculture State Agricultural Laboratory provides quality agricultural laboratory analysis, identification, certification, technical consultation and training services to various regulatory divisions of the Department and others as provided by law. To maintain the integrity of its test results, the Laboratory operates independently of the Department's regulatory divisions and operates under a stringent quality assurance program.

The primary accomplishment of 2010 was the modification of laboratory activities to accommodate budgetary reductions and the relocation of the laboratory from its single lab into two separate, smaller laboratories. The laboratory's base general fund budget for FY2009 (approved as part of the biennial budget) was just over \$2 million; however, the laboratory operated on a FY2010 general fund budget of \$1.009 million dollars. To achieve this level of reductions, the laboratory had to reduce the services it provided. Further, the relocation of its laboratory operations put additional constraints on testing and where it could be conducted. The table below illustrates the changes implemented.

	Past	Present	
Service	Holly	1520	250
Entomology – M	C	c limited	
Entomology – PCR	C	c	
Plant Pathology – M	C	c	
Plant Pathology - Elisa	C	c	c
Plant Pathology - PCR	C	C	
Plant Pathology - Nema	C		
Botany	c		
Seed – Export	C	c	
Seed – Regulatory	C	C	
Brucellosis – Blood	C		
Brucellosis – Milk	C		C
Meat – Food Safety	C		C
Meat – Proximate	C	c – expiring	
Food Safety	C	C (Some PCR methods)	C
Dairy Micro	C		C
Dairy Antibiotics	C		C limited
Dairy Pesticides	C	c	c
Dairy Aflatoxin	C	c	C limited
Feed	C	C	
Fertilizer	C	C	
Fertilizer – Heavy Metals	C		
Pesticide Formulations	C	C	
Pesticide Residue	C	c	C

Legend:

Holly = State Agricultural Laboratory at 2422 W Holly St, Phoenix

1520 = Third floor of the old Health Laboratory at 1520 W Adams, Phoenix

250 = State Laboratory Services building at 250 N 17th Ave, Phoenix

Bold = Discontinued and no longer have capability

c = capability to perform testing under emergency conditions with added or redirected resources

C = capacity to perform testing with current resources

Homeland Security

The SAL continues to improve its capabilities to provide assistance to the State and the Nation in the event of a homeland security emergency. During the past year, with help from the Arizona Department of Emergency Management, the laboratory has continued upgrading its analytical capacity by replacing nonfunctioning equipment and adding new analytical instrumentation. Federal, State and local governments are working together to produce a network of laboratories capable of responding to emergencies. SAL has worked hard during the past year to secure its place within the laboratory emergency response infrastructure.

Western Plant Diagnostic Network (WPDN) – Part of the National Plant Diagnostic Network (NPDN), this network consists of laboratories performing plant pathogen, weed and insect pest identifications. Within Arizona, as an offshoot of this network all identified laboratories with plant pest detection capabilities have formed the Arizona Pest Diagnostic Network. The purpose of these groups is to form and maintain a network of diagnostic labs that will communicate information, mainly pest diagnoses and form a communication network to rapidly exchange information in the event of a significant exotic pest find.

Food Emergency Response Network (FERN) – FERN is a network of state and federal laboratories that are committed to analyzing food samples in the event of a biological, chemical, or radiological outbreak or terrorist attack in this country. SAL applied and was accepted into the FERN for both chemical and microbiological testing. Managers of both sections attended a regional planning meeting for laboratories within the western states.

Quality Assurance Program

Quality assurance is an integral part of the Lab's analytical operations. It is the scrupulous attention to quality assurance standards that enables each of the laboratory's customers to act upon test results with utmost confidence.

Quality manuals define the laboratory policies, systems, programs, procedures and instructions to assure the quality of the test results. Standard operating procedures referenced in the quality manual detail laboratory processes, test methods, as well proper use and maintenance of equipment. These procedures ensure uniformity of work and the accuracy and reproducibility of test results.

Laboratory Audits

The dairy microbiology lab undergoes on-site laboratory audits that are conducted every three years by the U.S. Food and Drug Administration (FDA) Laboratory Evaluation Officers. These audits, combined with analyst participation in an annual proficiency sample program ensure the quality of the analyses conducted by the dairy microbiology laboratory.

USDA, Food Safety Inspection Service performs onsite audits of the meat chemistry laboratory activities every three years. These audits, combined with analyst participation in the required bimonthly proficiency sample testing program help ensure the quality of the analyses conducted at the SAL.

Personnel Requirements

The laboratory ensures the competence of all who operate specific equipment, perform tests, evaluate results, and sign test reports. Personnel performing specific tasks are qualified on the basis of appropriate education, training, experience, demonstrated skills, and/or certifications.

Reference Standards and Reference Materials

Certified reference material and internal quality control using secondary reference materials are used regularly to ensure the accuracy of test results. The Arizona Department of Agriculture Collection of Arthropods houses one of the largest and most comprehensive ant collections in Arizona. It is part of an insect collection made up of over 20,000 individual specimens, representing more than 250 families of insects. This important reference collection is used by staff in identifying samples of beneficial and harmful insects, which are introduced or established in the state.

Proficiency Test Programs (PTPs)

Analytical performance is validated by participation in several proficiency test programs. PTPs provide unknown samples for analysis by the SAL and provide feedback as to how well the lab did in detecting and/or enumerating test results. Examples include: feed sample PTP by the American Association of Feed Control Officials (AAFCO); fertilizer sample PTP by McGruder's Fertilizer Check Sample Data Program; PTP for meat analyses by the USDA; dairy sample PTP by the Laboratory Proficiency and Evaluation Team of the Food and Drug Administration; brucellosis sera testing by the USDA; seed sample PTP by the Association of Official Seed Analysts; and mycotoxin sample PTP by the American Oil Chemists Society.

Environmental Services Division (ESD)

The Arizona Department of Agriculture Environmental Services Division is responsible for protecting public health, agricultural workers, consumers and the environment. The Division is made up of three sections. The Licensing Section provides licensing for much of the agency ensuring quality customer service and appropriate cash handling. The Compliance Section protects the public, agricultural workers and pesticide handlers employed in agribusiness through field inspections and complaint follow-up to monitor proper use of crop protection products and enforcing compliance with environmental laws and rules. They also review labels and inspect marketplaces, as well as take samples of feed, fertilizer, pesticide and seed for analysis at the State Agricultural Laboratory to ensure product quality for consumers. The Office of Special Investigation is the criminal investigative section for the agency relating to department statutory authorities.

Staff Allocations

The Environmental Services Division had 19.5 full-time employee positions as of June 30, 2010. Eight of these positions are in the field and are responsible for sampling various nonfood products, ensuring compliance with pesticide, feed, fertilizer, seed and worker protection statutes and rules, and conducting criminal investigations.

Unusable Pesticide Disposal and Container Recycling

For the third year the Department contracted with Interstate Ag Plastics (IAP) out of Buttonwillow, California to offset some of IAP expenses to come into Arizona and collect properly rinsed pesticide containers. IAP checks the containers to make sure they have been properly rinsed, grinds them up and brings them to a facility where the recycled materials only go into products where human contact is minimal such as drainage tile, railroad ties etc. These collection events take place mostly at aerial applicators businesses as they have a large quantity of containers that have been properly managed. Others wanting to participate must coordinate this through IAP. This year collections were held at 10 different locations and collected nearly 74,500 pounds of plastic. This brings the total amount of pesticide containers recycled at 164,110 pounds.

Also held this year was another unusable pesticide collection event. This was the fourth year for this program. The program has been rotated between Pinal County and Yuma County where the largest amounts have been pre-registered. The program works with participants pre-registering their unusable pesticides with the department. (Unusable means the pesticides are no longer of value to the owner – it does not necessarily mean they are no longer registered – although these are acceptable as well.) The program accepts products from growers, including those that the grower no longer may know what they are. We then send out notification to sellers and commercial applicators to allow them to register if they choose.

The participants are notified of their acceptance and if there are any materials they cannot bring in. (paint, fertilizers, etc.) Emergency personnel are notified in advance of the collection event. The day of the event the participants bring their pre-registered unusable pesticides to the pre-determined collection location and the waste contractor removes the materials from their vehicle and the participants leave the sight. The waste contractor then has their work set out to categorize the wastes and ultimately have them properly destroyed.

This program is made possible through the pesticide registration fees paid by the pesticide manufacturers and the appropriation of these funds by the legislature for this purpose.

This year the event held in Yuma brought in 38,967 pounds for disposal. For the program this year this works out to be approximately \$1.79 per pound for disposal.

In addition to the Arizona collection, funding was provided by the EPA to dispose of pesticides along the border. This program ran into a little glitch in that the amount of product registered was not near what actually was to be disposed of. The contractor spent all of the \$100,000 provided for two collection events in Mexico in which 89530 pounds were collected for disposal. We will be seeking an additional \$82,000 from the EPA to try and pick up the remainder of the material that was left on sight due to lack of funding. This will not occur until federal fiscal year 2011.

Licensing

The centralized Licensing Section processes approximately 96 percent of licenses issued by the department. Office hours are from 8:00 a.m. to 5:00 p.m. Staff reductions brought about by budget cuts have forced the Licensing office to close for lunch from 12:30 p.m. - 1:30 p.m. After 4:30 p.m., paperwork is accepted but the issuance of the corresponding license may not occur until the following day. The best way to get needed forms for licensure application is to access our home page at www.azda.gov/Main/forms.htm.

The Department of Agriculture is committed to providing excellent customer service on a timely basis. This is proven out by the many customer service survey cards stating what a pleasant experience it was and how great the employees were in treating them professionally.

Industry Fees Protect Consumers

The Non-Food Quality protection program is funded with no general funds. The funding comes from legislative appropriation of monies collected from: an annual \$10 commercial feed license and the \$0.20 per ton commercial feed inspection fee; an annual \$125 fertilizer license, a \$50 per brand and grade specialty fertilizer registration and a \$0.25 per ton fertilizer inspection fee; a \$110 per product pesticide registration (this fee was raised \$10 this year to offset general fund budget cuts); and, an annual seed license fee of \$50 for dealers and \$100 for labelers. Approximately one-half of the seed fees collected are used to fund half a position at the State Agricultural Laboratory to perform seed quality analysis.

One hundred dollars of the fee paid for each fertilizer license and \$75 of the pesticide registration fee help support the Arizona Water Quality Assurance Revolving Fund (WQARF), which is administered by the Arizona Department of Environmental Quality (ADEQ), to be used for ground water cleanup projects. In 2010, \$935,692 in fees was collected for the WQARF: \$51,600 in fertilizer fees and \$884,092 in pesticide registration fees.

Licensing Requires Continuing Education

The department's continuing education efforts keep users of restricted use pesticides aware of current laws, rules and the latest in agriculture pest management to help protect the environment through efficient utilization of pesticides.

Individuals holding commercial certification are required to earn six continuing education units each year. Those holding private certification are required to earn three units each year. Private certification enables individuals to apply restricted use pesticides on land owned or rented by their employer or themselves. Commercial certification allows application on any agricultural property. Individuals holding pest control advisor licenses are required to earn fifteen continuing education credit hours annually.

During FY 2010 many training sessions were held that provided credential holders the opportunity to earn credits. Total credit hours granted to educational programs for continuing education totaled 811.5 hours. The number of training courses which were approved for the year was 263. The University of Arizona Cooperative Extension Service sponsored 46 of these training sessions and 191 were sponsored by companies in the private sector. The ESD and ACT held 15 of the courses and 11 other courses were sponsored by federal government agencies.

Testing Center

Tests administered by the Environmental Services Division include milk haulers, and a myriad of pesticide-use licenses. Since the licensing office is closed for lunch from 12:30 p.m. - 1:30 p.m., tests are only administered from 8:00 a.m. – 11:00 a.m. and 1:30 p.m. - 4:00 p.m. Tests are administered in Phoenix Monday through Friday at 1688 West Adams Street, to schedule an appointment call (602) 542-3578. For people outside the Phoenix-metro area, appointments must be made by calling 928-341-1775 (Yuma) or 520-628-6313 (Tucson).

Exams Administered in FY 2010

TYPE OF EXAM	Total Exams	Number Passed	Number Failed	Passing Rate
Aerial Applicator (AAP)	1	1	0	100%
Commercial Applicator (PUC)	166	130	36	78%
Custom Applicator (CAA)	0	0	0	N/A
Pest Control Advisor (PCA)	54	32	22	59%
Private Applicator (PUP)	94	78	16	83%
Fumigant Endorsement	3	3	0	100%
Milk Sampler & Hauler	84	74	10	88%
Cottonseed Sampler	0	0	0	N/A
TOTALS	402	318	84	79%

For FY 2010 the following chart represents the total number of pesticide use related licenses issued all expiring at calendar year's end.

Pesticide Use Related Credential Summary FY 2010	
Grower Permits (PGP)	1,076
Pesticide Sellers (PSP)	118
Ag Aircraft Pilots (AAP)	40
Custom Applicators (CAA)	53
Equipment Tags	476
Pest Control Advisors (PCA)	210
Private Applicators (PUP)	432
Commercial Applicators (PUC)	358
Pesticide Responsible Individual (PRI)	2

The following chart represents the total number of licenses, permits and certificates issued by the Licensing Section during FY 2010. Besides all the pesticide credentials listed above, aquaculture, meat, dairy and pesticides all expire on December 31 making it a very busy time of the year. Additionally, feed and fertilizer tonnage reports are due for the fourth quarter.

Licenses and Registrations Issued in FY 2010	
Pesticide - Total Pesticides Registered	12,008
Agriculture Use Pesticides	2,411
Non-Agricultural Use Pesticides	9,597
Fertilizer - Licensed Fertilizer Companies	344
Specialty Fertilizers	2,432
Feed - Licensed Feed Companies	871
Seed Dealers	1,220
Seed Labelers	201
Dairy/Milk Industry Licenses	356
Aquaculture Licenses	59
Egg & Egg Products	102
Meat Industry Licenses	258
Livestock Brand Certificates	1,803
Equine Certificates Issued	157
Certificates of Free Sale	75
Products Certified for Free Sale	2,700
Native Plant Permits Issued	742
Number of Native Plants Permitted	45,054
WPS-Worker Cards Issued	9,017
WPS-Handler Cards Issued	5,196
WPS-Trainers Certified	227

Fertilizer Tonnage FY 2010 (in Tons)

Dry	Bulk	Liquid	Total
72,156	77,342	189,882	339,380

Feed Tonnage FY 2010 (in Tons)
Total 1,393,533

Compliance

Pesticide Compliance and Worker Safety Program

The Compliance Section throughout most of the fiscal year had only four inspector positions (two Industrial Hygienists and two Pesticide Control Inspectors) filled and working full time after a couple positions were vacated and two individuals were laid off due to state budget cuts the previous year. In late March 2010, the division hired one more Industrial Hygienist and one Pesticide Control Inspector. These positions conduct a number of different types of health and safety inspections at commercial and private businesses that apply pesticides in agricultural settings. This includes pesticide dealers and pesticide production establishments to ensure compliance with state and federal pesticide sales, manufacturing and bulk storage regulations. Inspectors enforce agricultural safety and pesticide use laws and make recommendations of corrective procedures when appropriate. During inspections and through outreach, inspectors

provide consultation to agricultural employees and pesticide handlers to increase their knowledge and understanding of pesticide safety and agricultural safety laws. This year a number of inspections focused on the new federal pesticide containment regulations which deal with bulk agricultural pesticide storage and new pesticide container requirements.

Misuse is taken seriously

The Department observes pesticide applications and activities related to mixing and loading pesticides, storage and disposal of pesticides and empty pesticide container disposal to ensure safe pesticide use. Complaints alleging pesticide misuses are promptly and thoroughly investigated. Once a complaint investigation is complete, a recommended disposition is prepared. No recommended disposition can take place without a review and approval by the Associate Director, the Director and an attorney from the Office of the Arizona Attorney General. If all reviewing parties agree a violation of the pesticide laws occurred, a citation can be issued. Negligent parties may request a hearing with the Office of Administrative Hearings or pay a penalty established by law for their actions.

Report pesticide misuse

The ESD has a long standing Pesticide Emergency Hotline at 1-800-423-8876 where pesticide misuse can be reported. This number is also part of the required worker safety training requirements so workers and handlers have access to easily report worker protection standard (WPS) violations. This line is also used by pesticide applicators to request an inspector to monitor an application when spraying in sensitive areas where agricultural and urban areas interface. This number historically was monitored regularly even on weekends and holidays during the summer months. Due to budget cuts and reduced staffing, the line will no longer be monitored on weekends and holidays. Applicators were reminded to plan ahead and contact the division in advance during the weekdays to request monitoring of pesticide applications. Currently there are no formally designated Pesticide Management Areas (PMA). The Director designates PMAs. Historically, PMAs have been designated in new ag/urban interface locations where numerous citizens may be concerned about agricultural pesticide use and complaints are filed. Complaints about pesticide misuse may also be reported by calling either of the two offices located in Phoenix and Yuma/Somerton. Because we no longer have any designated PMAs, information was not sent to applicators. A reminder is posted on our website [www.azda.gov/ESD/PMA%2010%20\(3\).pdf](http://www.azda.gov/ESD/PMA%2010%20(3).pdf).

Restricted Use Pesticides

Inspections are conducted at pesticide marketplaces to ensure that pesticides are registered with the state and the Environmental Protection Agency. Pesticides that have been manufactured in other countries and illegally imported into Arizona may pose health risks to people, animals, and the environment as they are not subject to the same safety standards, strict quality control, labeling or child-safe packaging measures as pesticides manufactured in the United States. This is also an issue of fairness as those who do follow the laws to legally register their pesticides, which cost millions of dollars, are at an economic disadvantage. Inspections at pesticide dealers and on agricultural establishments ensure that pesticides classified as *restricted use* are sold and used only by persons who have proven their competency for certification through testing to show they can manage the associated risks. This also ensures that agricultural insecticides do not find their way into urban settings for residential use, which can be deadly.

Agricultural Worker Safety

Establishments applying and using agricultural use pesticides must comply with the Arizona and EPA's Worker Protection Standard (WPS). The worker safety program and regulations are designed to protect agricultural workers and pesticide handlers employed on agricultural establishments, which include farms, forests, nurseries, greenhouses and pesticide handling establishments.

If agricultural-use pesticides are applied on an agricultural establishment, under the WPS the establishment must train workers and handlers of agriculture pesticides, provide notification of pesticide applications, provide required personal protective equipment and decontamination supplies, take the employee to the doctor if they claim illness due to pesticides and provide a central location where information on pesticides used can be obtained. The law prohibits an agricultural employer from retaliating against an employee for complying with or attempting to comply with agricultural safety standards.

The Department's worker safety efforts predate federal standards and continue to be a benchmark for other states. The Department compliments WPS inspections by remaining in contact with the agricultural worker community, to maintain a level of trust and credibility.

Train The Trainer [TTT] Workshops

During the state fiscal year, ESD Compliance industrial hygienists conducted a total of nine English / Spanish Train the Trainer Workshops in Phoenix, Yuma, Maricopa, Parker and Safford Arizona. The industrial hygienist also participated in two English / Spanish language Joint Arizona / California / Tribal / Mexico Workshops in Yuma, Arizona, and one in Brawley, California, which were funded by the EPA through ACT.

Recertification & Training Courses

Annual Recertification & Training Courses were held across the state. Pest Control Advisors, Certified Applicators and Responsible Parties for Pesticide Sellers were able to obtain six hours Continuing Education Units for attending the full day course. The courses were held December 2, 3, and 10, 2009 in Yuma, UofA MAC, and Safford, respectively.

Groundwater Protection

Close cooperation between the Arizona Department of Agriculture and the Arizona Department of Environmental Quality continued as 7 additional monitoring wells were installed in southeastern Arizona. Coordinated sampling efforts continued with over 1000 analyses performed on samples from 19 different monitoring wells for the pesticides on the state's groundwater protection list. Working as a team with ADEQ all new agricultural use products are being reviewed before registration to ensure the state's groundwater resources are protected. The funding for much of the analysis and the drilling of the monitoring wells has been provided by the US EPA through the agencies cooperative agreement.

Community / Industry Outreach Activities

ESD Compliance inspection staff participated in the following community / industry outreach activities in Yuma and San Luis, Arizona and Winterhaven, California:

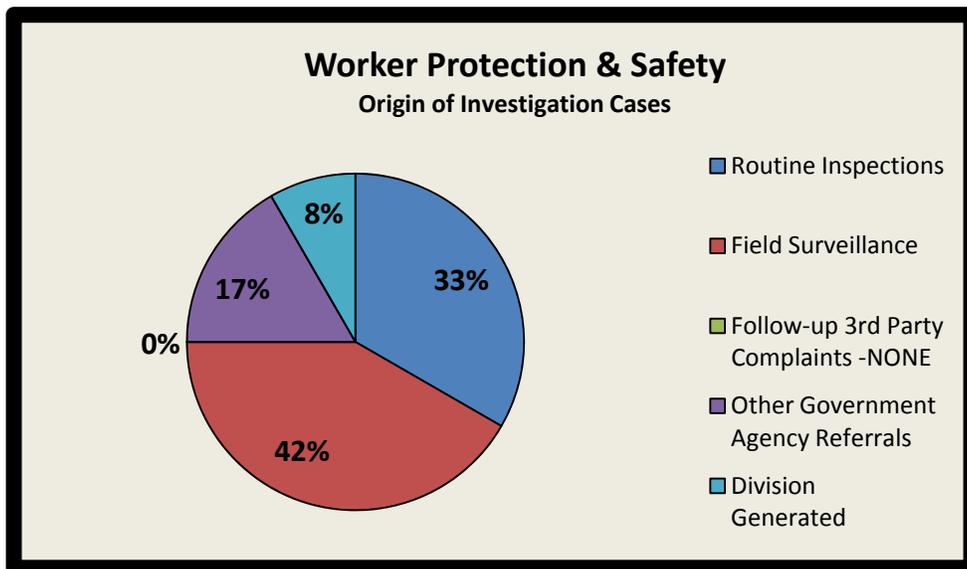
- Dia Del Campesino Health and Information Fair – San Luis, AZ.
- Arizona / California Agricultural Employer Seminar – Yuma, AZ.
- 2010 Southwest AG Summit – Yuma, AZ.

- 15th Annual Arizona Interagency Farm Worker Coalition, Inc. (AIFC) Educational Conference – Winterhaven, CA.

Training /Conference Attendance

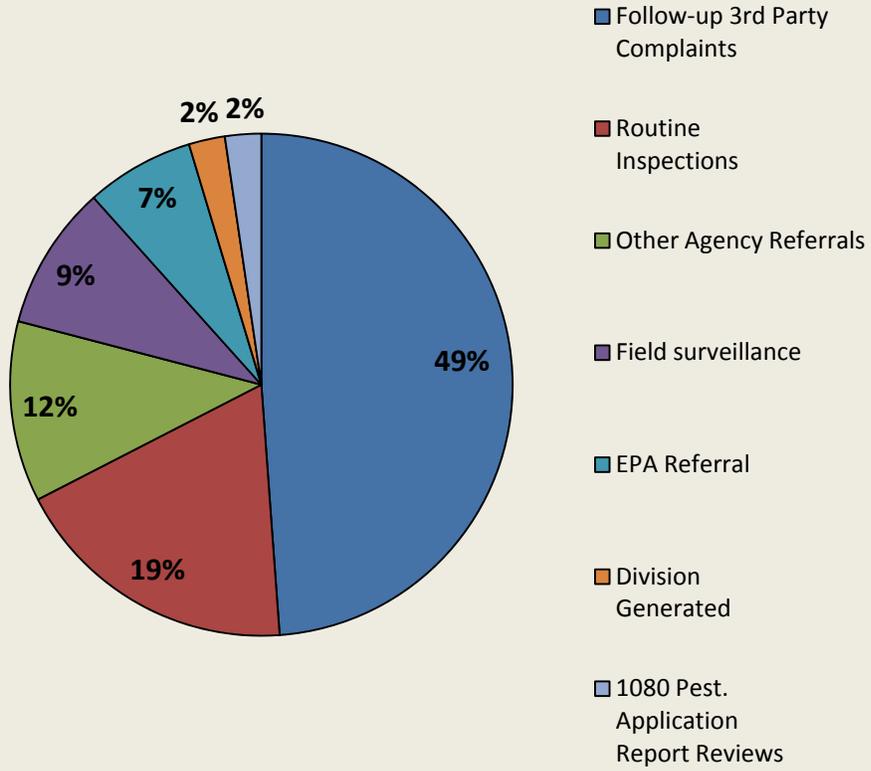
ESD Compliance staff attended training/conferences as follows:

- NCIT Council on Licensure, Enforcement and Regulation (CLEAR) – Denver, CO.
- AAFCO Basic Inspector Seminar – Denver, CO.
- Saguaro Continuing Education Conference & Expo – Mesa, AZ.
- Pesticide Inspector Residential Training (PIRT)*– Grantsville, PA.
- FDA VM209 Rendering Plant Inspections Training – Omaha, NE.
- Pesticide Inspector Residential Training (PIRT)* EPA Sponsored Program – Spokane, WA.
- Soil Fumigant Pesticide Inspector Residential Training (PIRT)* – Tampa, FL.
* EPA Sponsored Program
- Association of American Seed Control Officials (AASCO) – Scottsdale, AZ.
- North American Pesticide Applicator Certification and Safety Education Workshop – Charleston, SC.
- Association of American Feed Control officials (AAFCO) – Washington, DC.
- U.S. Dept. of Homeland Security Sponsored Border Governors Full-Scale Exercise – Las Cruces, NM.
- State FIFRA Issues Research & Evaluation Group (SFIREG) – Arlington, VA.
- USDA Sponsored Country of Origin Labeling (COOL) – Atlanta, GA.
- Association of American Feed Control officials (AAFCO) – Redondo Beach, CA.
- Seed Trade Association of AZ Annual Conference – Tubac, AZ.
- Western Region Pesticide Meeting – Boise, ID.
- 2010 AZ Crop Protection Association Desert Ag Conference – Casa Grande, AZ.

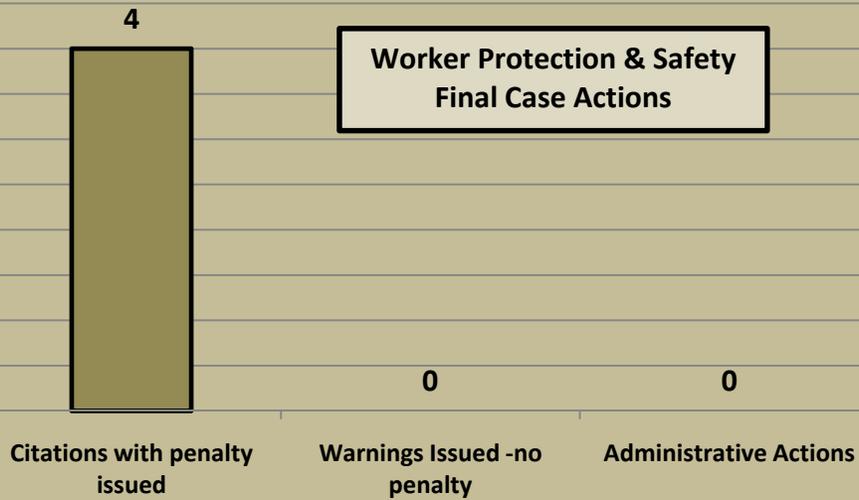


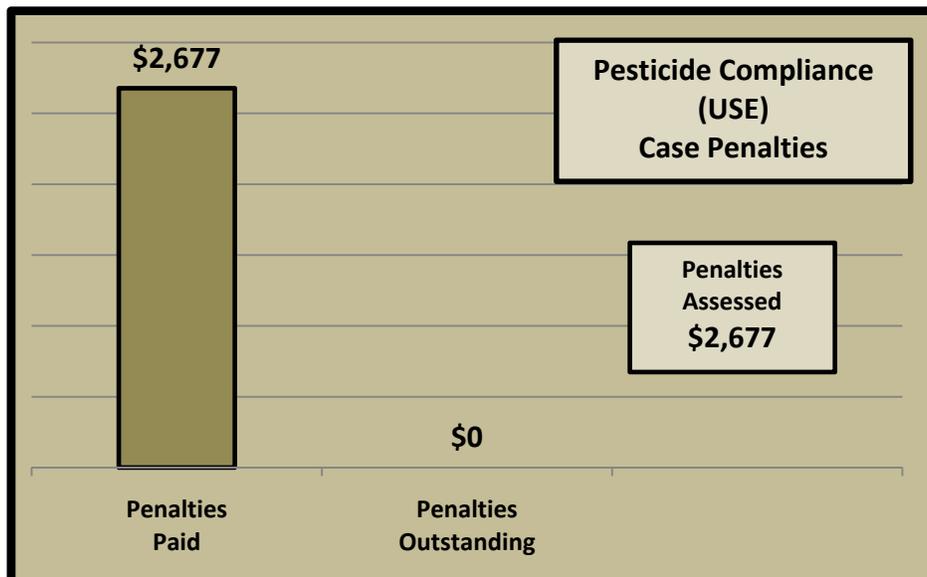
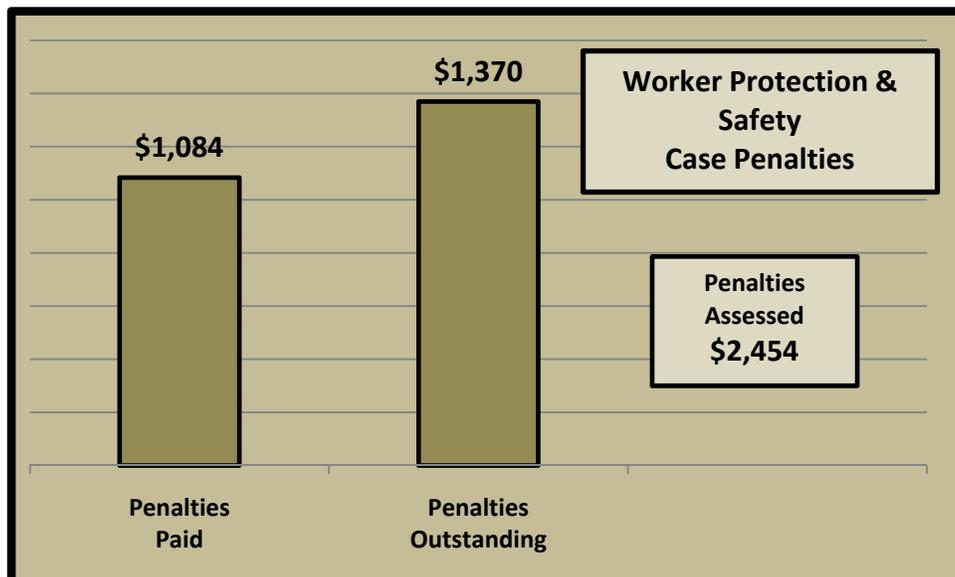
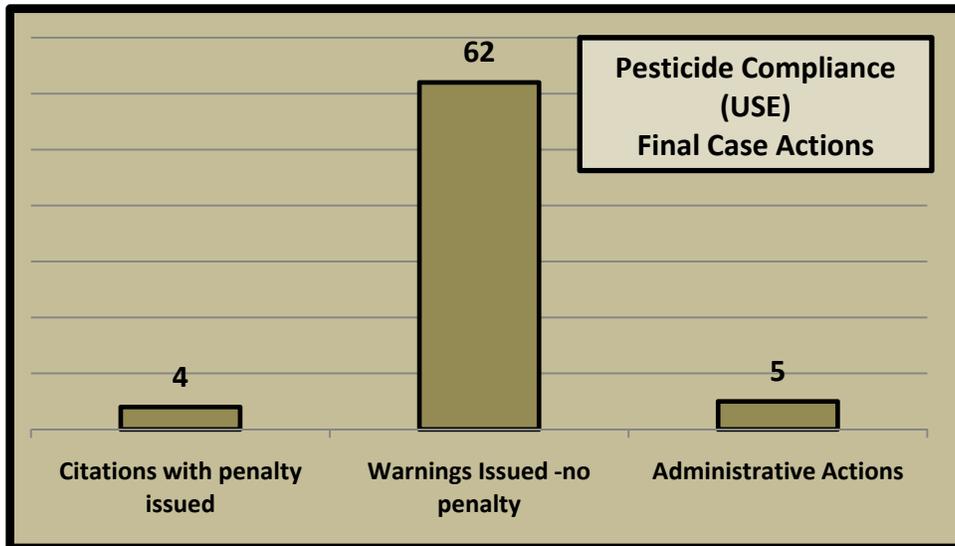
Pesticide Control (USE)

Origin of Investigation Cases



Worker Protection & Safety Final Case Actions





**Pesticide Use & Worker Safety
Complaints Received or Violations Observed**

Pesticide Control (USE) Issues	Number of Cases
Restricted use Pesticide Recordkeeping	1
Pesticide Misuse	2
Pesticide Storage	6
Pesticide Exposure resulting from drift / overspray	12
Pesticide Bulk Release / Spill	2
Drift / Overspray	2
Pesticide Disposal / Dumping	2
Storage / Use of Fumigant without certification	2
Crop Damage	1
Pesticide Sales Record Keeping	3
Animal / Bird Kill	2
Use of Unregistered Restricted Use Pesticide	1
Restricted Use Pesticide Use Without Certification	2
1080 Pesticide Application Reports	1
Pesticide Concerns / Odor	2
Illegal Tolerance	1
Operating without Pesticide Seller Permit	1

Worker Safety Issues	Number of Cases
Failure to Verify Training	4
Failure to Train	2
Application List not Provided / Posted / Incomplete	1
Safety Poster not Posted / Illegible / Inaccessible	1
Decontamination Site not provided	1
Training Records	1
Agriculture Safety / Multiple WPS Violations	1
Unsafe Environment	1
Failure to wear required PPP (Personal Protective Equipment) Safety Equipment	1

Non-food Quality Assurance Program

Non-Food Quality Enforcement Actions

FERTILIZER	Number
TOTAL NUMBER OF CASES OPENED	41
Division Generated	1
Routine Inspections	40
NUMBER OF FERTILIZER PENALTIES ISSUED	19
Total amount of penalties issued	\$42,318.54*
Total amount of penalties paid to date	\$41,786.95
Total amount of outstanding penalties	\$531.59
CEASE & DESIST ORDERS ISSUED	84
Quality Assurance Analysis Failures	19
Unlicensed Commercial Fertilizer Company	21
Unregistered Specialty Fertilizer	37
Failure to Pay Tonnage Fees	7
WARNINGS / NOTICE OF VIOLATIONS ISSUED	66
Quality Assurance Analysis Failures	17
Unlicensed Commercial Fertilizer Company	13
Unregistered Specialty Fertilizer	29
Failure to Pay Tonnage Fees	7
*penalties are paid to the consumer unless it cannot be determined and then it is deposited in the state General Fund	

COMMERCIAL FEED	Number
TOTAL NUMBER OF CASES OPENED	73
Follow-up third-party complaints	10
Routine Inspections	59
Referrals	3
Division Generated	1
CEASE & DESIST ORDERS ISSUED	88
Quality Assurance analysis Failures	9
Unlicensed Commercial Feed Company	77
Adulterated Product	1
Failure to submit tonnage	1
WARNINGS / NOTICE OF VIOLATIONS ISSUED	86
Quality Assurance Analysis Failures	5
Unlicensed Commercial Feed Company	75
Misbranding / Mislabeled	4
Adulterated Product	1
Failure to submit tonnage	1

SEED	Number
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TOTAL NUMBER OF CASES OPENED	26
Follow-up third-party complaints	3
Routine Inspections	20
Referrals	2
Division Generated	1
CEASE & DESIST ORDERS ISSUED	26
Germination Failures	1
Unlicensed Seed Labeler	13
Noxious Weed Seed	2
Expired Test Date	10
WARNINGS / NOTICE OF VIOLATIONS ISSUED	30
Germination Failures	1
Unlicensed Seed Dealer	2
Unlicensed Seed Labeler	15
Noxious Weed Seed	2
Expired Test Date	10

PESTICIDE	Number
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TOTAL NUMBER OF CASES OPENED	37
Follow-up third-party complaints	4
Routine Inspections	25
Division Generated	3
1080 Pesticide Application Report Reviews	1
EPA Referral	4
CEASE & DESIST ORDERS ISSUED	44
Quality Assurance Analysis Failures	5
State Unregistered Pesticides	21
Federal Unregistered Pesticides	8
Misbranding	6
Mislabeled 25(b) exempt	4
WARNINGS / NOTICE OF VIOLATIONS ISSUED	36
Quality Assurance Analysis Failures	4
State Unregistered Pesticides	21
Federal Unregistered Pesticides	6
Misbranding	3
Mislabeled 25(b) exempt	2

Definitions:

Warning/Notice of Violation (NOV) - Warns a manufacturer or distributor of violations related to Feed, Fertilizer, Pesticide, and Seed products offered for sale or distribution in Arizona. Multiple warnings may result in products being removed from sale or distribution, as well as injunctions or seizure of violative products.

Cease and Desist (C&D) - A Cease and Desist is issued when a company fails to come into compliance and requires that the product is removed from sale and distribution in Arizona. C&D Orders remove substandard products from the marketplace for consumer protection.

Total Non-Food Quality Enforcement Actions – Fertilizer, Commercial Feed,
Seed and Pesticide:

Number of Warnings / Notice of Violations: **218**

Number of Cease & Desist Orders: **242**

Country of Origin Labeling (COOL)

For the second year, the division worked under a federal cooperative agreement with USDA Agricultural Marketing Service and hired a part-time inspector to conduct inspections under the program. Inspections are conducted at marketplaces, mainly grocery stores, across Arizona checking for compliance with the federal Country of Origin Labeling (COOL) requirements. The COOL regulations apply to fresh and frozen fruits and vegetables, fish and shellfish, beef, veal, pork, goat, and lamb/mutton, chicken, ginseng, and finally peanuts, pecans and macadamia nuts. Products must bear labeling indicating the country of origin for the commodity as defined by the law. Fish and shellfish are also required to be labeled as to whether or not they are wild or farm-raised. Staff attended refresher training by USDA AMS including an overview of the regulations and covered commodities as well as the inspection form and reporting to USDA.

Office of Special Investigations

The Office of Special Investigations (OSI) is primarily responsible for conducting investigations of criminal activities involving violations of the State agricultural laws and providing law enforcement support to the other divisions and programs within the department. The office is comprised of two officers specially trained to investigate criminal misconduct regarding native plant theft and destruction, the theft, wanton killing of livestock, cruelty of livestock, food safety and cultural resource protection.

Officer Certification, Training & Meetings

OSI investigators are certified peace officers. The investigators maintain training standards in firearms and various other proficiency requirements in public safety disciplines. The OSI Supervisor also has the responsibility of maintaining the training records for all departmental peace officers. Arizona Peace Officers Standards and Training (AZPOST) personnel routinely audit departmental records to ensure all departmental certified peace officers meet AZPOST annual requirements. Compliance results are consistently commendable.

One of the requirements of officer certification is maintaining a minimum of eight hours of continuing education each year. One OSI Investigator attended the Western States Livestock Identification Association (WSLIA) annual training seminar as the Department's representative. The Association's seminar is held in Reno, Nevada in March and is primarily attended by certified peace officers from fifteen western States and Canada. The training is designed to give continuing education credit hours for the certified officers and is specific to rural crime.

The classes are designed to assist all the officers in gaining skills that can be used in the field to help protect themselves and the public. There are also classes on advanced investigative techniques that apply to our associated field of expertise. This year's seminar was focused on explosives identification and manufacture, marijuana grow sites, and forensic entomology. All of these associated training programs were exceptionally well designed to enhance the rural field officer in his day to day work in rural crime investigations.

Much of the explosives making material demonstrated in the classroom can be purchased at your local hardware store. These products are then assembled and/or mixed, placed in a holding container (hollow heel of a shoe or even underwear) and then ignited with a simple flame or spark.



One of the bomb techs demonstrating the bomb trailer and protective suits they wear.

Marijuana growers have been a problem to rural law enforcement for many years but they have become increasingly more sophisticated and dangerous. Some of the explosives and their associated devices are being used to stop and/or deter discovery. This poses a serious threat to rural law enforcement.

The training in the detection, surveillance and subsequent exposure of these sites enhances the rural crime officers and investigators alertness and will significantly reduce injury or death that could have occurred due to a lack of training or knowledge of such sites.

killings and the class gave him insights and skills to assist him in determining the approximate time of death and how to collect and prepare evidence to send to a laboratory for more precise analyses.

The Forensic Entomology class was very useful for our Investigator due to the fact that he routinely investigates livestock

OSI's Supervisor also attended the 63rd Annual International Livestock Identification Association's Conference (ILIA) in Park City, Utah which the Department is a Charter Founder. The conference's general focus is on animal identification and traceability but encourages and supports legislation that provides inspection and law enforcement laws regarding livestock ownership and identification. The emphasis of the conference is to support and develop programs to work with livestock owners and government entities to work together for animal traceability and identification through uniform laws, regulations and systems of inspections for a mutual cause.

This year's conference focused on the need for communication between individual livestock owners, State and province livestock programs and the federal government plans for animal identification. The ILIA supports the Brand State's Working Group which has been in continuous communication with the USDA in sharing the concerns of Brand State's regarding brands being an integral part of animal identification.

Dr. Patricia Evans of Utah State University, who is a horse expert, gave a vibrant and much needed common sense talk promoting an abandoned horse reporting program. This growing problem is haunting legislators who voted in favor to stop horse slaughter in the USA. There are two Grassroots organizations that are staying on top of the issue and have finalized a bill for the Senate to reverse the ban on horse slaughter. The resolution committee of the ILIA, of which our OSI Supervisor is a member, formulated a resolution to send to congress on behalf of the ILIA to oppose any bill which would impose any penalties or that would restrict any individual their rights to do as they wish with their property as long as it is humane.

In July our Native Plant Investigator stationed in Tucson attended a meeting at the University of Arizona with the Tucson Cactus and Succulent Society and the Tohono O'odham Tribe to discuss passive micro-chipping of Saguaro cactus that were in areas vulnerable to theft on Tribal and State lands. The Society had placed a microchip in a saguaro on the U of A campus sometime ago and demonstrated no harm to the cactus and no visible damage at the entry place. Micro-chipping of Saguaro is continuing to be a topic of discussion among the many entities which deal with protecting our native plants.

In September of 2009 our Investigator in Tucson attended another meeting regarding micro-chipping of vulnerable saguaros. This meeting was attended by representatives from the Bureau of Land Management, Saguaro National Park West, Arizona State Land Department and the Tucson Cactus and Succulent Society. The discussion was to Micro-chip saguaros believed most vulnerable to theft on State and Federal land. The Federal departments had the money to purchase the chips and scanners. The meeting concluded with no one able to come up with the necessary man power to actually perform the work of implanting, logging, mapping and performing the GPS functions for each cactus. Therefore the program has stagnated and there has been no work done to further the chipping of saguaros at this time.

An OSI investigator also gave interviews to an independent news writer in New Jersey and the Audubon Society Magazine regarding the issue of micro-chipping cactus. Apparently, the fact that the program has actually not been instituted resulted in little or no press. There was a small blurb in the Audubon Society Magazine but it did not go into any detail and did not mention the Department and our efforts in stopping saguaro theft.

Enforcement Activity

Early in the fiscal year OSI was reduced by two Investigators due to a retirement and a lay off. This did not reduce the number of criminal referrals received. There were 38 cases of criminal activity involving native plants and livestock opened of which 25 were completed successfully. The number of referrals, both criminal and civil has doubled this year. There are several cases under investigation at this time and OSI is currently working jointly with the Bureau of Land Management on several major native plant cases.

Native Plants Investigations

The Arizona Native Plant Law was established to protect those plants in their original growing sites. The law requires a person to have a State permit to take or possess any protected native plant taken from its' growing site. Moreover, it is unlawful to destroy or mutilate any protected plant without the consent of the landowner. To regulate the collection of protected native plants, the Department enforces the law through investigations, legal action against violators, public awareness through the media, and permit issuance.



Ongoing, wanton destruction of native plants is a constant concern of OSI and with limited personnel it is difficult to stop or deter.

OSI with the assistance of the Division has instituted a program to enhance the documentation required by rule for native plant permits and tags that includes an inventory form. The form will help cactus salvagers track their permit and tag usage. Tags and their associated permits are good for one year from the time of issuance unless the property is sold and a subsequent agreement



An OSI investigator checking a load of ocotillos from Texas

has been made with the new owner. This length of time can result in tracking issues relative to the rules which require a salvager to give the Department transplant/receiver address for the plants that have been taken from its original growing site. The salvagers can now record the temporary and then the subsequent transplant/receiver location of the plants they move and OSI has provided the form.

During the fiscal year, OSI staff members issued forty-two interstate shipping certificates on protected plants being shipped out of state. The primary cactus shipped through this State is ocotillo

although there are many others. Most of the shipments are from Texas. OSI relies on the shippers to contact our office to get their permits. The plants are inspected by the State of origin for pests and disease and Arizona requires a duplicate record of the inspection before a permit is issued to move across or within our State.

Livestock Investigations

OSI investigators are involved in complex criminal investigations involving livestock. They are charged with reviewing cases from the Animal Services Division to determine if the case warrants further investigation by OSI. Once OSI is involved in the case they perform the necessary interviews, interrogations, crime scene photographs and collection of evidence, serve any search warrants as a result of the evidence of the case and pursue the case to its conclusion. OSI will submit the case to the County Attorney or Attorney General for review. Cases of theft of livestock, killing of livestock, felony cruelty to animals, fraud, forgery and conspiracy are examples of the charges which may arise from an OSI investigation.



OSI investigator collecting evidence from a vehicle believed to have hauled a butchered cow carcass. This operation involved seven different agency's personnel and was called 'Operation Bovine'. There were over forty officers involved in the service of the warrant due to the size of the property. The suspects were arrested and are awaiting trial.

OSI investigated twelve cases of livestock killing or death comprising twenty-two cattle and five horses. Six cases are awaiting ballistic results from the Arizona Department of Public Safety Crime Laboratory. Two cases were adjudicated successfully and the remaining four were closed due to lack of evidence of a crime or undetermined cause of death.

Two livestock killing cases involved the writing and service of complex search warrants which required the assistance of the Special Response Team (SRT) of Navajo County and the Special Weapons and Tactics (SWAT) squad of Cochise County respectively. Each of these operations involved a minimum of twenty-four law enforcement officers including both OSI investigators.



One of the 202 stolen cattle recovered in a Texas Feedlot

There were twenty-one cases of alleged theft or seizure for questionable ownership which could lead to a theft investigation. One case involved 202 cattle which were recovered and the suspect is currently in Pinal County Jail awaiting trial. Seven cases have been closed by adjudication under the civil seizure statute. Two cases were closed as a result of an assist for another State and the subsequent adjudication in the appropriate State. Five cases are missing livestock with an associated all points bulletin release. Six cases are still under investigation.

Food Safety Investigations

OSI investigation responsibilities include assistance in illegal animal slaughtering operation violations for food safety reasons. Federal and state laws require specific sanitary standards to assure that Arizona consumers have a safe supply of wholesome meat and meat products.

One OSI investigator has previous experience as a Food Products and Safety Inspector with the Department and continues to work closely with the Supervisor of this program to assist him on investigations involving alleged illegal slaughter. Several cases have been discussed in the fiscal year but more surveillance is needed before the cases will be pursued any further.

Cultural Resource Investigations

Material evidence of past cultural and natural heritage is found in many areas in Arizona. This includes archaeological, paleontological and historical sites, none of which can be renewed, and when destroyed, are gone forever. The department has the authority to assist in the enforcement of the Antiquities Act to protect and preserve evidence of Arizona's richest legacies.

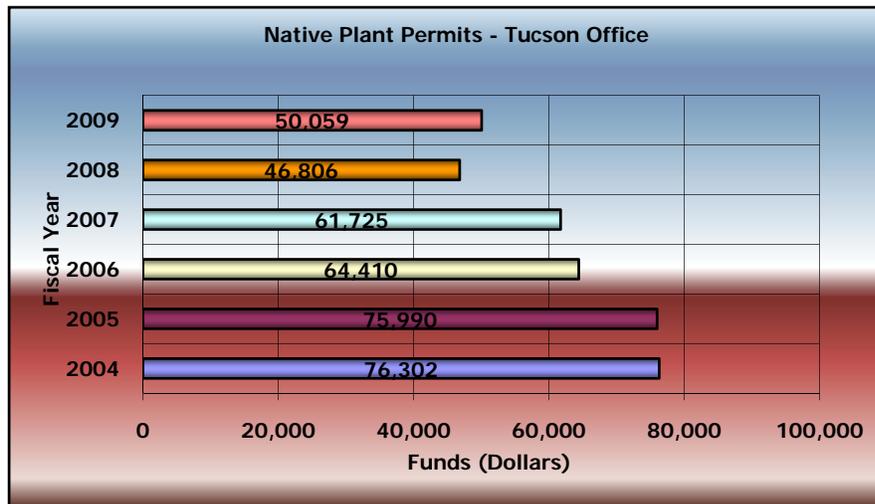
While no enforcement action was taken during the fiscal year, the OSI staff continues to work closely with other agencies to reduce the threat of losing one of Arizona's richest cultural legacies.

OSI Administrative Statistics

During the fiscal year, a portion of the OSI investigator duties is to issue native plant removal permits from the Tucson Office. The schedule is four hours on Monday's and Friday's only. The Investigator can continue to perform other duties while in the office such as report writing, interviews and administrative reporting.

Number of permits, tags and seals issued and revenue received from the Tucson office for FY 2009

NATIVE PLANTS					
MONTHLY PERMITS, TAGS, SEALS & REVENUE					
Month	No. of Permits	Saguaro Tags	Regular Tags	Green Seals	Total Fees
JUL	33	129	807	1,160	\$ 4,247.65
AUG	23	184	702	804	\$ 4,408.20
SEPT	26	82	217	1,560	\$ 2,009.50
OCT	28	349	405	1,291	\$ 5,121.40
NOV	23	423	736	739	\$ 6,641.50
DEC	27	95	627	1,384	\$ 2,485.10
JAN	22	75	926	1,277	\$ 3,987.55
FEB	26	96	211	1,537	\$ 2,169.05
MAR	35	179	544	2,402	\$ 4,067.30
APR	27	93	438	1,086	\$ 2,659.40
MAY	34	407	525	1,510	\$ 6,157.00
JUN	20	41	959	988	\$ 6,105.20
TOTAL	324	2,153	7,097	15,738	\$ 50,058.85



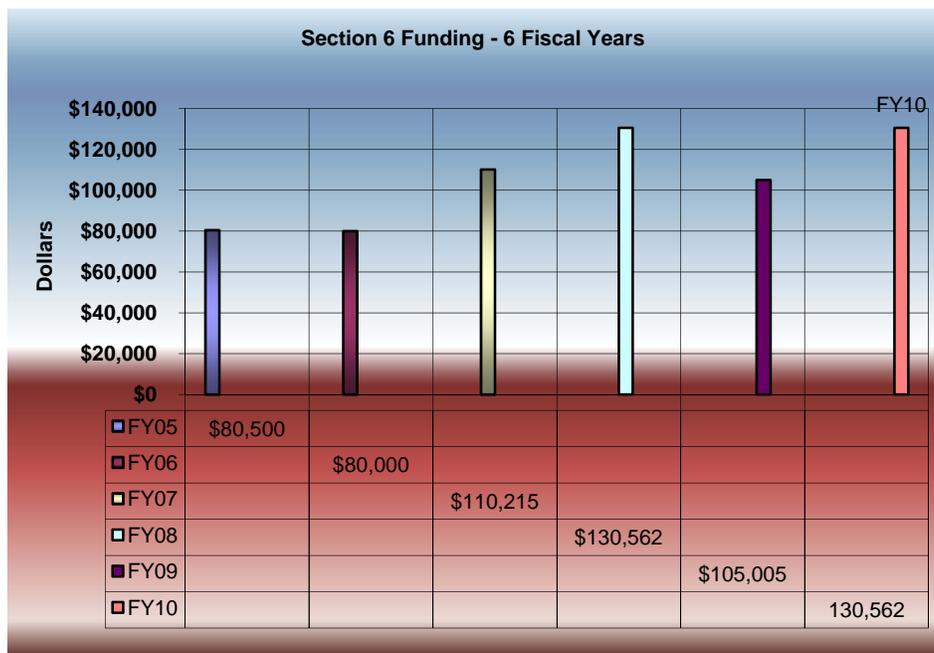
Fees collected for permits, tags and seals issued from the Tucson office over six fiscal years. |

The investigators also respond to many calls, e-mails, letters and visitors regarding Native Plant and Livestock issues. This contract is from a diverse group of people from the public, private, government and law enforcement sectors. A majority of the contacts are for general information and/or assistance. A table of these contacts is given below to demonstrate the amount of these contacts per month.

OSI MONTHLY PHONE, FAX, E-MAIL AND VISITOR LOG						
FY 2009						
MONTH	LIVESTOCK	NATIVE PLANTS	FOOD SAFETY	ANTIQUITIES	OTHER	TOTAL
JULY	70	148			108	326
AUG	82	343			153	578
SEP	127	185	2		197	511
OCT	104	145			121	370
NOV	104	68			148	320
DEC	96	149			114	359
JAN	107	83			115	305
FEB	110	141			112	363
MAR	164	165			146	475
APR	113	82		2	76	273
MAY	108	82			114	304
JUNE	124	161	4		147	436
TOTAL	1309	1752	6	2	1551	4620

This table highlights the number of telephone calls, faxes, e-mails and visitors received by staff over the fiscal year.

A Memorandum of Understanding between the department and the University of Arizona was continued to study threatened and endangered plants species under Section 6 of the Endangered Species Act. A Federal grant totaling \$130,562 was proposed to conduct studies on four different plant species in Arizona. The proposed studies were: (1) to protect an existing population and establish a new population of endangered Sentry Milk Vetch; (2) an ecological study and comparison of two endangered *Astragalus* species – those being the Sentry Milk Vetch and the Mancos Milk Vetch; (3) conduct a survey of northwestern Arizona for the endangered Holmgren Milk Vetch; and (4) a study on the Caradine Plains Cactus population assessment and fire ecology.



This table highlights the amount of funds received for plant studies through the Endangered Species Act grant program for the past six fiscal years.

Plant Services Division (PSD)

Pest Exclusion and Management

Increased Threat of Pests

Increased execution of various trade agreements has resulted in a higher incidence of trade into and out of the United States and, subsequently, Arizona. Many pests common to foreign countries present a significant threat to Arizona's agricultural industry, public well-being and associated quality of life. As more commerce enters Arizona, and significant weather events continue, the risk of introducing plant pests or diseases from other states or foreign countries increases.

An example of a serious pest threat presently pressuring Arizona is the 2009 detection of the Asian Citrus Psyllid (ACP) in Yuma County. The ACP is a pest threat in its own right, but with its ability to potentially vector Citrus Greening, noted to be the world's most destructive citrus disease, ACP has become a pest of significant concern to the State of Arizona.

As a result of the 2009 detection of ACP in Yuma County, the Plant Services Division intensified its detection activities for this pest. Vigilant detection activities are presently in place across the state, focusing on commercial citrus, high risk residential citrus areas, as well as providers of citrus nursery stock. The Division quickly responded by implementing a response program and a plant quarantine on host commodities in an effort to reduce the risk for the pest to spread to other areas of the state and to protect the export capabilities for commercial citrus fruit. These activities, accomplished in concert with industry and public outreach, increase the probability of the early detection of future ACP infestations and the mitigation of potential damage which could occur if adequate safeguarding measures were not in place. Coordination between state and federal agencies and stakeholder partners is an imperative key to limit the ability for this pest to spread and to ensure Arizona can maintain a viable foothold in the citrus fruit and citrus nursery stock markets. As of August of 2010 there have only been ten interceptions of the pest, limited to a portion of Yuma County.

Dangers

Introduction of non-native plant pests can have devastating effects on the yield of agricultural and horticultural commodities, and can increase industry production costs through pesticide applications for eradication or control of destructive pests. Plant pests reduce the quality of products and threaten the demand for Arizona products.

Metropolitan Phoenix is among the nation's largest cities and growing. This unprecedented growth has fueled significant increases in the importation and distribution of plants, many of which originate in parts of the country already infested with devastating and costly exotic pests such as the Light brown apple moth that can have a serious effect on a number of plant species or the Asian long-horned beetle that is a devastating wood borer.

Since FY2002, the division has lost some 76% of its FTE resources; 56% between FY08 and FY09 alone. Agricultural inspections at ports of entry were shuttered in 2008 to accommodate a \$1.1 million budget reduction; eliminating the "exclusionary" process to keeping unwanted plant and animal pests and diseases from entering the state.

Pest Exclusion Safety Nets

The Pest Exclusion and Management Program has moved to incorporate new technologies, advanced inspector training and updated quarantine requirements. Intensive pest-trapping methods are used to meet the challenges of rapid urban development, increased trade and expanded export opportunities for Arizona's agricultural industry.

Free-From Status

Arizona continues to enjoy freedom from numerous exotic pests that have cost infested states millions of dollars in attempted control or eradication. Through efforts to exclude, detect and mitigate exotic species establishment, the Arizona Department of Agriculture protects the quality of Arizona life and market access for our agricultural commodities produced here.

Arizona's Most Unwanted Pests

- **Citrus Greening** — poses a serious threat to Arizona's citrus trees now that the vector of the disease, the Asian citrus psyllid, has made its way into Arizona. Trees infected with citrus greening, also known as Huanglongbing, may produce misshapen, unmarketable, bitter fruit. Other than tree removal, there is no known cure for the disease. In areas of world affected by citrus greening the average productive lifespan of citrus trees has dropped from 50 or more years to 15 or less. Trees in orchards usually die 3-5 years after becoming infected and require removal and replanting. An infected tree produces fruit that is unsuitable for sale as fresh fruit or for juice.



Asian citrus psyllid adult

Regulatory restrictions are in place for Florida, Georgia, Puerto Rico and portions of Louisiana and South Carolina for citrus greening; for Asian citrus psyllid, Alabama, Texas, Mississippi, Florida, Hawaii, Guam, and portions of Louisiana, California, South Carolina and Arizona.

- **Light-Brown Apple Moth (LBAM)** – was discovered in Alameda County, California in March, 2007. Since then, California reports LBAM detections in an additional 16 counties. This is a serious pest because the larvae feed on a wide range of crops and ornamental plants and trees important to Arizona. LBAM has been recorded from over 2,000 different types of plants, encompassing 50 plant families. Host plants include deciduous tree fruits, subtropical fruits, berry fruits, ornamentals, and forest and shade trees. In January 2008, Acting Agriculture Secretary Chuck Conner announced the availability of \$74.5 million in emergency funding to continue efforts in California to stop the spread of LBAM. Federal Domestic Quarantine Order DA-2009-46 regulates the interstate movement of LBAM host to prevent the spreading the infestations to other states.



Light-Brown Apple Moth larva feeding on the surface of an apple - photo courtesy of USDA



Feeding damage on pear leaf caused by Light-Brown Apple Moth larvae - photo courtesy of USDA

- Pecan Weevil** – attacks the pecan nut, causing serious crop loss. The larvae (grubs) develop inside nuts and destroy the entire kernel by their feeding process. The nearest infestation of pecan weevil is in New Mexico. Arizona Administrative Code R3-4-231 restricts the entry of pecans, other nuts, and firewood to prevent movement of pecan weevil into the state.



White larvae (grubs) destroying the inside of a pecan



Mature weevil larva exiting a nut

- Red Palm Mite** – The red palm mite appeared in Puerto Rico in 2006 and in Palm Beach County, Florida in December 2007. Currently there are six counties in Southern Florida infested with this pest. This is a pest of several important palm species including areca, date, and queen palms. It causes serious leaf damage, ruining the ornamental value of the plants. Wind currents and the movement of infested nursery stock easily distribute this mite in addition to handicrafts (hats, bowls, etc.) fashioned from infested coconut leaves that are sold to tourists on many Caribbean islands.



Red palm mite infestation on *Musa* sp., Trinidad – photo courtesy of FDACS



On palms, yellowing of leaf tissue is visible plant damage that can be caused by feeding of the mite. Photo by Joel Floyd, USDA

- **Citrus Canker**—results in rapid death of citrus trees. This disease threatens commercial and residential citrus production in Arizona. Federal rule regulates the interstate movement of citrus nursery stock and citrus fruit from Florida to prevent further spread of the disease in Arizona and other citrus-producing states.
- **Cactus Moth**—The Cactus Moth is a significant threat to prickly pear cactus in Arizona. This insect can attack all species of prickly pear cacti (*Opuntia spp.*) in North America and can completely destroy a cactus plant. Larvae burrow into the pad to feed, and then move to other pads before pupation. These photos are examples of the damage caused by this serious pest.



- **Japanese beetle** — defoliates ornamental plants and destroys turf roots resulting in decline or death; threatens the quality of golf courses, parks, and lawns, and export potential of Arizona’s green industry. Three of Arizona’s neighboring states (Colorado, Utah, and New Mexico) are battling infestations of Japanese beetle. The US Domestic Japanese Beetle Harmonization Plan aids in preventing the interstate spread of this pest on nursery stock. Federal rule regulates the movement of aircraft departing from infested areas.



Adults feeding on a grapevine leaf - USDA



Japanese beetle grubs destroy turf by feeding on underground roots – USDA

- **Gypsy Moth** — is one of the most destructive defoliators of hard and softwood trees. Gypsy moth caterpillars feed on the leaves of more than 500 species of trees and shrubs. Larvae damage trees by eating the foliage, which weakens and eventually kills them, affecting the aesthetic value of forested areas and urban landscapes.



The gypsy moth larva



Gypsy moth larvae have eaten most of the foliage from this tree.

• **Fruit Flies**

(Mediterranean, Mexican, Oriental, and Caribbean) — devastating pests of citrus and other types of fruit that impact quality and yield. Presence in Arizona would limit export potential of citrus commodities. Federal rule restricts the movement of host material from areas under quarantine to prevent the spread of infestations. Photos show fruit fly larvae in damaged fruit.



• **Red Imported Fire Ant**



An aggressive competitor with native ant species, its aggressive behavior, and its ability to both sting and bite threatens public well being, quality of life, and agricultural production, especially livestock. Presence in Arizona would limit the export potential of the state's green industry. In appearance, the native Southern Fire Ant closely resembles the Red Imported Fire Ant. Federal rule restricts movement of regulated commodities from infested areas.

Inspections

Inspection staff assigned to three operational locations (Phoenix, Tucson, Yuma) function as the primary safety net against pests of concern. Interior inspectors carry out a variety of duties including issuance of certificates, field inspections for quarantine clearance and export certification in seed and produce distribution centers, to serve the agricultural industry and contribute to the prevention of pest establishment within the state. High risk locations and commodities that have the potential to harbor a dangerous plant pest are inspected by the Division's inspection personnel.

An Overview

In FY 2010, inspection staff intercepted 14,706, a decrease of 2.5% over FY 2009, within the state's interior through various inspections; 2,331 federal phytosanitary certificates were issued for the export of vegetable, agricultural, and ornamental seed, produce, nursery stock, wood products, and various other agricultural commodities. Pre-clearance of plants for pests, most notably citrus stock, before distribution within the State is a major inspection task.

Biological Identification Group

With the Division's new addition of the Biological Identification Group, identification of potential dangerous plant pests can be made accurately and quickly. This affords inspection staff the ability to respond in a more timely fashion to pest interceptions reducing the cost of potential eradications and minimizing the impacts on commerce.

Survey and Detection

The early detection of potential pests and delimiting surveys of pest infestations through trapping and surveillance programs for a wide range of pests is the final safety net in the division's pest interception effort. Statewide, an average of 7,715 traps were placed, serviced and monitored throughout FY 2010 for up to 19 targeted pest species.

Aggressive Detection

Foreign nations require scientific data to ensure that pests that inhabit Arizona will not harm their crops. Because the division maintains an aggressive detection program to help protect that Federal free-from pest distinction, Arizona's agricultural producers can ship almost anywhere in the world and their products are welcomed in many foreign markets. This kind of market access is unique and is the result of the Arizona Department of Agriculture's commitment to protect Arizona industries.

Fruit Fly



In particular, many foreign nations are concerned about the fruit fly complex. Fruit flies, much like a wormy apple, cause citrus fruit to be cosmetically unacceptable to consumers and increase spoilage in commercial storage.

The division's exotic fruit fly detection efforts involves monitoring 3,373 traps placed statewide and currently meets or exceeds the Federal trapping protocols. To date, the division's efforts have achieved the result that no fruit flies of concern have been

detected in the state.

In FY 2010, inspectors continued to use all internationally accepted lures and trapping arrays and techniques for a highly efficient detection strategy for all exotic fruit fly species of concern. Add to this an ongoing training process for fruit fly trapping personnel and a focused quality control system, and the result is that Arizona citrus, both commercial and residential, is assured of appropriate protection from a debilitating infestation from these destructive pests.

Nut Pest Monitoring



The nut industry, including pecans, pistachios, and walnuts, is a fast growing agricultural industry within Arizona. Arizona production accounted for \$36.8 million in pecan exports in FY2007 alone. Several devastating pests exist within the nut producing states surrounding Arizona, but Arizona still enjoys a pest free status. The division has developed and implemented a detection strategy to monitor for the introduction of several of these pests, including the Hickory Shuckworm, the Pecan Nut Casebearer, the Pecan Weevil and the Walnut Husk Fly.

Inspectors place traps in both commercial and residential pecan environments in order to monitor for an introduction of these devastating pests. In addition, Arizona pecan cleaning facilities are inspected during the cleaning season each year to ensure Arizona pecans are pest free and therefore able to enter the export market unhindered.

Hand in hand with producers and industry representatives, the division is leading this proactive endeavor to keep Arizona-produced nuts free from pests of export significance, making Arizona-produced nuts a commodity that is desired by many in this important export market.

Gypsy Moth



Gypsy Moth, a devastating forest pest well established in the northeastern United States, is a pest that is threatening Arizona's forests. Leaf destruction caused by the feeding caterpillars weakens trees and can lead to tree death. Once again, due to department commitment, no reproducing gypsy moth population has been detected in Arizona. Occasionally, a "hitchhiking" male moth has been detected in traps placed at RV parks. The division maintains an active gypsy moth trapping

program including placement and servicing of traps on state and private forestlands. High-risk locations, such as RV parks, are routinely trapped.

Citrus Commodity Survey



Citrus, both its commercial production and popularity as a residential landscape choice, has historically been a key component in Arizona's diverse landscape. Its survival, however, is continuously threatened by a wide range of harmful pests, many already found in the citrus producing states adjacent to Arizona. In order to help protect Arizona citrus, the Plant Services Division conducts an annual citrus survey. The department has trained specialized surveyors who utilize a variety of detection techniques, which include

conducting visual inspections of the groves, collecting soil samples, as well as deploying and monitoring insect traps.

Cactus Moth



This extremely invasive prickly pear cactus pest is threatening native landscapes and agricultural industries throughout the southern United States and Mexico. The Plant Services Division is on the cutting edge in the detection of this pest.

Detection traps are strategically placed in key potential introduction sites in order to monitor for its arrival and allow for a rapid response by regulatory and industry representatives.

Commitment to Service

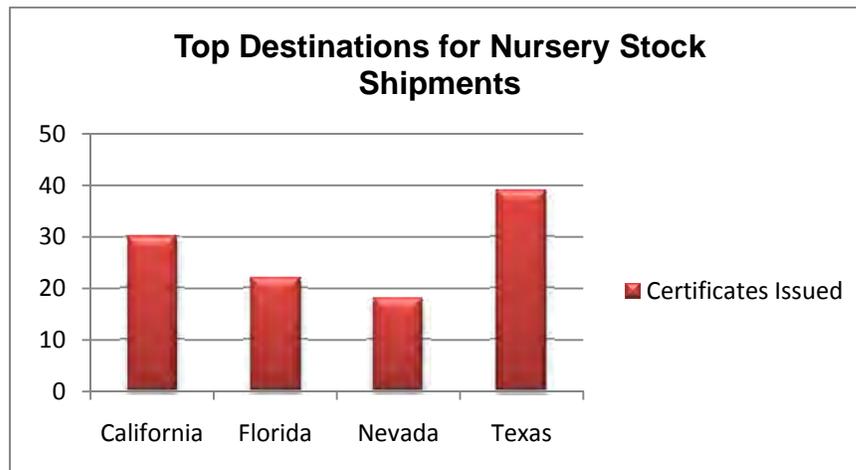
The Plant Services Division continues its efforts to improve timeliness and quality of customer service delivery and even though faced with the continued impact of budget reductions, reduced inspection staff as well as numerous other pest challenges, PSD has demonstrated its commitment to service by the following:

Export Certification

The division administers certification programs to facilitate interstate and international movement to agricultural commodities. However, due to staffing reductions, the Division has transferred responsibility for Federal Phytosanitary Certificate issuance back to USDA-APHIS in most geographies of the State.

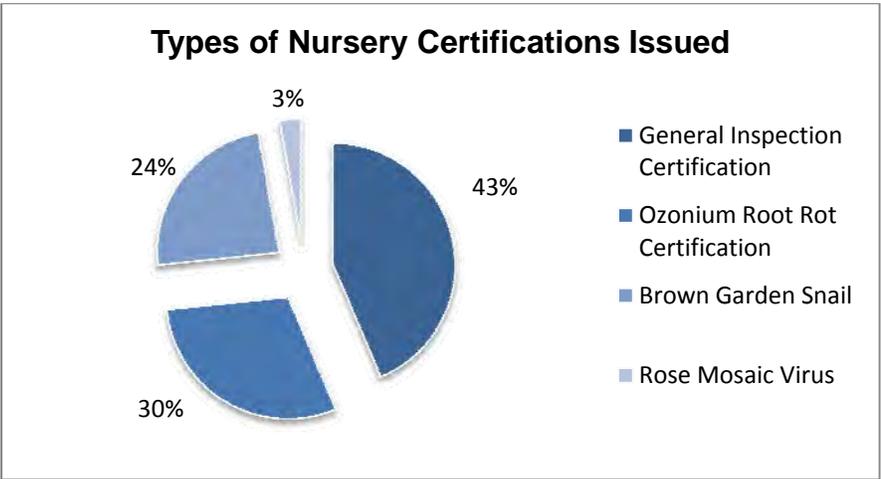
- **Domestic shipments of nursery stock**

In FY 2010, inspectors issued 1,540 single shipment certificates for shipments of agricultural commodities to other states. Nursery stock accounted for 67 certificates.



- **Voluntary nursery inspection certification program**

The Division processed 294 applications during calendar year 2009 from Arizona nurseries requesting certification to comply with the entry requirements of other states, and issued 300 individual certificates following inspection of the applicants' properties.



World Market Access

Successful verification of the integrity of our pest detection efforts and free-from status for quarantine pests of concern to our trading partners ensures greater opportunities for Arizona's agricultural industry, most notably expanded international market access.

Federal Phytosanitary Certification

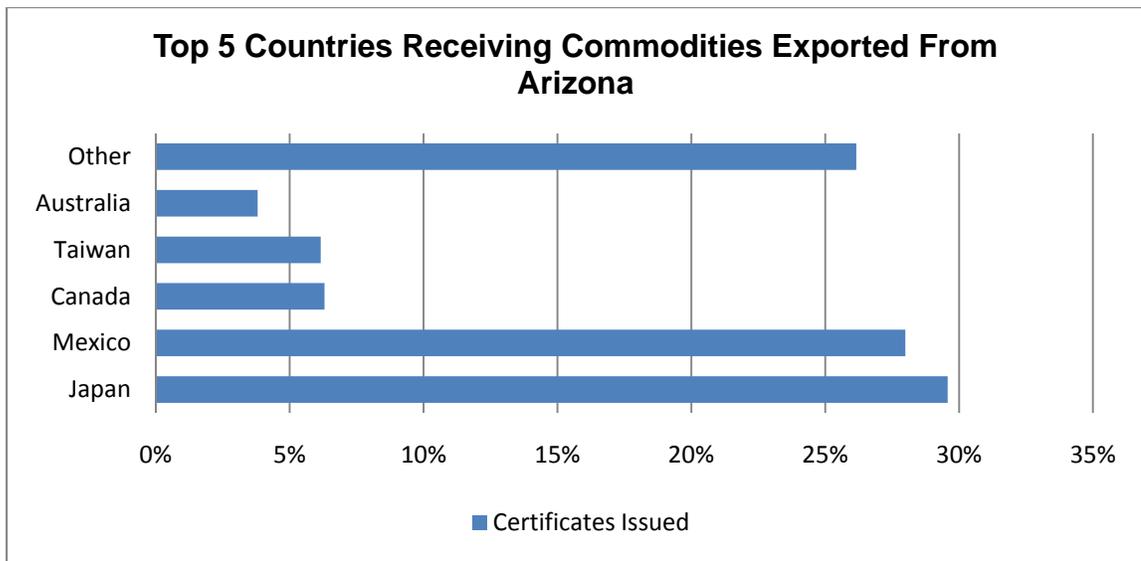
- The Division received 773 applications for phytosanitary field inspection of seed crops for international export. 41,135 acres were inspected and found free of pests and diseases.

Seed Crops Inspected

Cotton.....	39%
Vegetable.....	65%
Grass.....	3%
Grain.....	3%

Federal Export Certification of Agricultural Commodities

- The division issued 2,331 federal export certifications to accommodate shipment to foreign markets.



Export Enhancement

Arizona’s economy benefits greatly from the department’s strict maintenance of its aggressive pest detection program. In previous years, government quarantine officials from the People’s Republic of China, Chile, Argentina, Israel and Mexico reviewed the Division’s pest detection efforts to the end that more and more foreign nations have opened their market, thus allowing Arizona producer’s greater financial growth options.

Noxious Weeds

“Weed” is a term used to designate a pest plant. Certain imported or introduced (non-native) invasive weeds are extremely destructive and labeled as noxious for regulatory purposes.

Some of Arizona’s Weeds of Major Concern

- | | |
|--------------------|-------------------------|
| Giant salvinia | Buffelgrass |
| Russian knapweed | Yellow starthistle |
| Leafy spurge | Sweet resinbush |
| Camelthorn | Diffuse knapweed |
| Dalmatian toadflax | Hydrilla |
| Onionweed | Floating water hyacinth |

Cooperative Effort

The Division maintains a Noxious Weed Program that coordinates a number of state, federal and university weed exclusion plans and control efforts dedicated to preventing environmental disasters caused by invasive plants. Arizona’s noxious weed administrative rules divide the Noxious Weed List into three groups.

1. Regulated noxious weeds found within the state may be quarantined to prevent further spread. If the regulated noxious weed is not quarantined, the department shall provide the grower with technical information on effective weed control activities through integrated pest management.

2. Restricted noxious weeds found within the state shall be quarantined to prevent further infestation or contamination. Commodities or land may be quarantined until eradication is complete.
3. Prohibited noxious weeds are prohibited from introduction into Arizona.

At the beginning of FY 2011, 13 Weed Management Areas (WMA's) were actively pursuing control or eradication goals, mapping local weed distributions and conducting public information programs in Arizona.



A site in Arizona, that was previously infested with Kudzu vine, shows the before and after results of successful control measures to contain a potentially invasive weed.

Noxious Weeds for Sale

As each spring flower season approaches, weed dispersal can happen from businesses such as grocery, drug, pet, hardware stores and nurseries. Most gardeners do not think of nurseries or gardening shops as sources of pest plants. Arizona Department of Agriculture inspectors find prohibited weeds in retail seed displays and in display ponds each year. Often, non-native species have no natural enemies in new environments and, if exotic species are aggressive, they may become weedy invaders in their new habitats.



Morning glory vine (left) and Floating water hyacinth are examples of noxious weeds found for sale in Arizona.



Another highly used method for the distribution and sale of noxious weeds are through internet sales on peer to peer auctions and sale sites. Some noxious weeds may be pleasing to the eye and are often easily cultivated, making them a marketable resource for some home growers. These sellers, often from another state, are many times unfamiliar with regulatory restrictions in Arizona and may inadvertently be the cause of an infestation of a noxious weed.