

*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**

**FY2010 – 2011**

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# Animal Services Division (ASD)

## Food Inspection

The Food Inspection 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 arrive at 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 and Raw Milk. Is there really a difference?*

Most milk in Arizona is sold pasteurized. This means the fluid milk is subjected to heat treatment for a specified period of time to kill micro organisms 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 can 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.



Arizona Jersey Cows lining up for dinner

### *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. The program has operated on industry assessments since 1940.

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. Six state employees are stationed at three 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.

## *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.

## *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 ingestion exercises 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 2011 exercise, the Department met all standards for emergency response. The food inspection programs are integral to departmental participation in such drills, which also includes animal health veterinarians and livestock officers and brand inspectors.



A 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, the department's food inspection programs provide a service by inspecting many food products at the source of their production, bottling, processing and packaging. Some of this work goes back nearly to statehood, starting with the office of the Dairy Commission in 1918.

From the farm to you...

# 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 in the AHWP 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	1186
Bovine Brucellosis – Blood Samples Collected at Slaughter	121,293
Swine Brucellosis – Blood Tests	140
Bovine Tuberculosis – Tuberculin Skin Tests	75,368
Equine Infectious Anemia – Blood Tests	8902
Official Calfhood Brucellosis Vaccinations	80,061

## 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 feral waterfowl and 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. During FY 2011 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 2012. Also, presentations concerning these diseases are made to those groups requesting them.

#### *National Veterinary Stockpile planning*

On February 16<sup>th</sup>, 2011 in conjunction with the USDA-APHIS National Veterinary Stockpile (NVS), the Arizona Department of Emergency Management, and other county, state and federal agencies the ADA co-sponsored an NVS Plan Workshop that was held at the Arizona Military Academy at the Papago Military Park in Phoenix. The purpose of the workshop was to further develop the draft Arizona NVS Plan to receive, manage, store, and distribute supplies from the National Veterinary Stockpile during emergencies affecting livestock and poultry. Receiving sites in Arizona have been identified for this purpose and a draft AZ NVS Plan has been developed as required by the USDA NVS.

An ADA-ASD Veterinary Medical Officer attended the Navajo and Hopi Nation Full-scale Exercise (FSE) as an observer on April 27<sup>th</sup>, 2011 in Window Rock, Arizona. The FSE was sponsored by the USDA National Veterinary Stockpile and involved receiving, storing and distributing a truck-and-trailer load of animal health supplies to be used by responders dealing with a simulated animal disease outbreak among livestock on the Navajo Nation.

#### *Foreign Animal Disease Program*

Early recognition of Foreign Animal Disease (FAD) is paramount to reducing the impact of a devastating disease outbreak. Field investigations of possible FADs performed by Federal and ADA staff veterinarians during the period 4/1/10 through 6/30/11 were:

Non-Avian (equine, bovine)	42
Avian	15
Total investigations	57

All FAD investigations were conducted within 24 hours of notification.

## Homeland Security Grant

The Arizona Department of Agriculture-Animal Services Division (ADA-ASD) was awarded the ADA Interoperability Enhancement Grant (555607-01) by the Arizona Department of Homeland Security to upgrade and enhance the Division's emergency radio system. During this reporting period, the AZDPS Radio Shop and ADA-ASD personnel coordinated initial equipment acquisition by for this grant. Two repeaters will be added and an existing one will be moved to establish coverage in areas of Arizona formerly without two-way radio coverage for Arizona department of ADA-ASD field personnel. In addition, vehicle repeaters will be installed in the trucks of field personnel to permit contact with Phoenix ADA dispatch or local law enforcement by field personnel on foot using hand-held transceivers. Additional mobile radios were purchased to be installed in field service vehicles currently without radio equipment. All equipment will be P25 (digital) compatible and completely interoperable with other compatible systems. These upgrades should greatly enhance the safety of field personnel during their routine activities and provide for improved communications during emergency operations. The AZDPS radio shop will be conducting the system enhancement work. Additionally, ASD personnel are investigating upgrading ASD Dispatch to 24/7 capability in cooperation with other state agencies as a future

### *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, swine 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.

ADA continues to work with the SACPA (Southern Arizona Cattlemen Protective Association). The ranchers are in many cases not members of other organizations. The ranchers are in the southern third of Arizona and we work with them on registering their premises.

## *Annual Licenses*

### **Aquaculture**

The aquaculture program regulates commercial operations that grow, transport and process fish and shrimp. Numbers of licenses issued: transporters (19), processors of fish and shrimp for human consumption (6), growing facilities (16), research and educational facilities (5), and operations that charge a fee for fishing (6).

### **Feedlots**

Twenty-three 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*

<b>CLASS OF LIVESTOCK</b>	<b>NUMBER OF IN SHIPMENTS</b>	<b>TOTAL ANIMALS</b>
Dairy Cattle Replacements	305	30,966
Beef Cattle	2,876	345,058
Swine	278	8958
Sheep and Goat	351	28,141
Horses	5,986	12,655
Fish and Shrimp	123	unavailable

## *Field Investigations and Inspections Summary*

<b>Category Name</b>	<b>Total number</b>
Health and Movement Inspections	10,250
Butcher Inspections	1,402
Animal Care Investigations	1,570
Animals-at-Large Investigations	1,258
Self-inspection certificates issued	25,320
Theft Investigations	55

## *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.

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# Arizona Department of Agriculture

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## ***NEWS RELEASE***

### ***FOR IMMEDIATE RELEASE***

**RELEASE DATE:** May 18, 2011

**MEDIA CONTACT:** John W. Hunt, DVM 602 542-4293

### **Horse Virus Found in Arizona**

The Arizona Department of Agriculture (ADA) received laboratory confirmation last night of Equine Herpes Virus (EHV -1) infection in an Arizona horse that showed severe neurological disease. The owners of the affected horse, under the direction of an attending veterinarian, have restricted animal movement to prevent the spread of disease to other horses. They are closely monitoring the remaining exposed horses.

The horse may have been exposed to the neurological form of EHV-1 during the National Cutting Horse Association's Western National Championships held in Ogden, Utah April 30-May 8, 2011. Utah, Idaho, Colorado, California and New Mexico animal health officials have reported suspected cases of EHV-1 infection in horses that were at the Ogden event.

ADA will notify Arizonans that had their horses entered in the Ogden event to work with their veterinarian to restrict movement and to monitor their horses. Acting State Veterinarian Dr. John Hunt recommends that isolation and monitoring continue for 28 days after any clinical signs of disease are observed.

Equine Herpes Virus is highly contagious among horses but poses no threat to humans. The symptoms in horses may include a fever, nasal discharge, wobbly gait, hind-end weakness, dribbling of urine and diminished tail tone. The virus is easily spread by airborne transmission, horse-to-horse contact and by contact with nasal secretions on equipment, tack, feed and other surfaces. Caretakers can spread the virus to horses if their hands, clothing, shoes or vehicles are contaminated.

Additional Resources:

[A Guide To Understanding the Neurologic Form of EHV Infection](#)

[USDA Animal Plant Health Inspection Service Resources](#)

[American Association of Equine Practitioners Fact Sheet](#)

ADA contact number: 602-542-4293

[www.azda.gov](http://www.azda.gov)

The incursion of the neurological form of EHV-1 resulted in 13 premises being quarantined by accredited veterinarians and monitored by state and federal animal health officials. 93 horses were tested/monitored on the 13 restricted premises.

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## ***PRESS RELEASE***

### ***FOR IMMEDIATE RELEASE***

**RELEASE DATE:** June 9, 2011

**MEDIA CONTACT:** Laura Oxley, 602-542-1094

### **Steer Tests Positive for Bovine TB**

The Arizona Department of Agriculture (ADA) announced today a single steer in a Pinal County rodeo stock operation tested positive for bovine tuberculosis (bovine TB). The event cattle operation has been placed under quarantine.

The affected steer was recently imported into the state of Arizona from Mexico and tested negative for bovine TB at the time of importation. The positive diagnosis was determined when the steer was retested to meet another state's entry requirement.

"This diagnosis is a reminder of how important it is to keep high risk imported steers and spayed heifers separate from domestic beef and dairy breeding cattle," stated Acting State Veterinarian Dr. John Hunt.

The United States Department of Agriculture (USDA) Animal Plant Health Inspection Service, Veterinary Services' Proposed [Bovine Tuberculosis and Brucellosis Draft Regulatory Framework](#) document is currently open for public comment. The Framework recognizes the need to be ever vigilant on how imported livestock are maintained to prevent exposure to the US national breeding herd.

Dr. Hunt explains that, since there is no treatment for cattle infected with bovine tuberculosis, exposed cattle must be either tested or depopulated. Given that the time from an animal's exposure to a positive test can be several months, it can take months of testing to ensure the disease is eradicated from a herd.

Arizona has been declared free of bovine tuberculosis since 1978. Free status was temporarily suspended due to an incident in 1979 but was reinstated in 1981 after prompt elimination of the disease. The State Veterinarian and the ADA veterinary staff are working closely with USDA officials to put into place the best course of action to eliminate the disease.

June 9, 2011 [www.azda.gov](http://www.azda.gov)

336 exposed steers were depopulated once a comprehensive epidemiological investigation was concluded. Due to swift action by regulatory officials and cooperation of the cattle owners there was not any spread of bovine tuberculosis to exposed steers.

*Emergency Support Function (ESF-11)*

*Interagency Assistance*

On April 1, 2011, at the request of Arizona Department of Public Safety, the Arizona Department of Agriculture responded to a motor vehicle accident on Interstate 17, approximately 7 miles north of Black Canyon City. The incident involved a single tractor / trailer hauling cattle from Kansas to Tolleson, Arizona. The vehicle drifted off the roadway, striking a guardrail, and turned onto its side. The guardrail prevented the vehicle from going over an approximately 500 foot embankment. However, the trailer containing the Holstein steers was over the embankment and suspended mid-air. Three Livestock Officers and one Livestock Inspector responded to the scene. With assistance from local ranchers, a corral was constructed around the scene; the trailer was winched, by heavy recovery equipment, up the embankment; and the animals that had survived were rescued. Only 15 of 37 head survived the incident. The interstate was closed for approximately 12 hours. The Arizona Department of Agriculture assisted in clearing the scene.



## Wallow Fire Response

The Arizona Department of Agriculture, Animal Services Division and Environmental Services Division were a part of the Wallow Fire Disaster in Apache and upper Greenlee Counties. Apache County Chief Deputy requested a Livestock Evacuation Plan on June 2, 2011.

Based on the initial plan, the following capabilities and objectives were developed for The Wallow Fire Livestock Evacuation:

- Capability 1: Provide timely and professional capture and control of livestock.
  - Capability 2: Able to quickly mobilize a diverse number of livestock equipment and personnel to effectively remove livestock from harm.
  - Capability 3: We are equipped with excellent communications to enable us to communicate on numerous channels with several different agencies.
- 
- Objective 1: Insure the health and safety of all personnel on the fire at all times.
  - Objective 2: Safely evacuate livestock in harm or danger.
  - Objective 3: Insure the health and welfare of all Livestock under ADA control.

The major strengths identified during this event are as follows:

- ADA was able to mobilize several different size pieces of livestock hauling and containment equipment quickly and efficiently to use in the rescue and evacuation of numerous different species of livestock and poultry.
- Several pieces of equipment such as the mobile incident command trailer and those vehicles equipped with emergency lights were critical in our response.
- Equally set as a major strength in this event was our radio communications equipment. Our mobile and portable equipment worked exceptionally well during the entire event.

Overall our participation in this event was very successful. Of all the pieces of the plan that worked the best, our communications equipment and diversity of trailers were by far the two most important. Also, our staff worked exceptionally well together and was able to assist other agencies; as well as, coordinate with non-government organizations that responded to the event. In all, seven department personnel were activated to respond to the incident.

Link to an article on the Wallow Fire response in the White Mountain Independent Central:

[http://www.wmicentral.com/content/tncms/live/wmicentral.com/news\\_premium/saving-livestock-all-in-a-day-s-work/article\\_296c6530-9dd7-11e0-bf03-001cc4c03286.html](http://www.wmicentral.com/content/tncms/live/wmicentral.com/news_premium/saving-livestock-all-in-a-day-s-work/article_296c6530-9dd7-11e0-bf03-001cc4c03286.html)





# 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 104.6 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 86% of the states total produce production, based on carton count for fiscal year 2011 are as follows:

Iceberg lettuce	23,440,337	Leaf lettuce	4,685,174
Romaine lettuce	17,411,171	Spring Mix	4,202,018
Cantaloupe	16,324,883	Tomatoes	4,027,794
Spinach	6,732,878	Broccoli	3,933,127
Watermelon	6,471,522	Honeydew	3,070,280

As detailed below, the Citrus, Fruit and Vegetable Standardization Program and the Federal State Inspection Program conducted 22,674 inspections last year. In addition, the Citrus, Fruit and Vegetable Standardization Program issued 529 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 by 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 fourteenth 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 7.2 million packages of field tomatoes, 2.2 million packages of greenhouse tomatoes and 15 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 37 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*

An Executive Order was issued to extend the Arizona Statewide Gleaning Project. Gleaning is the harvesting of 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 & 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*

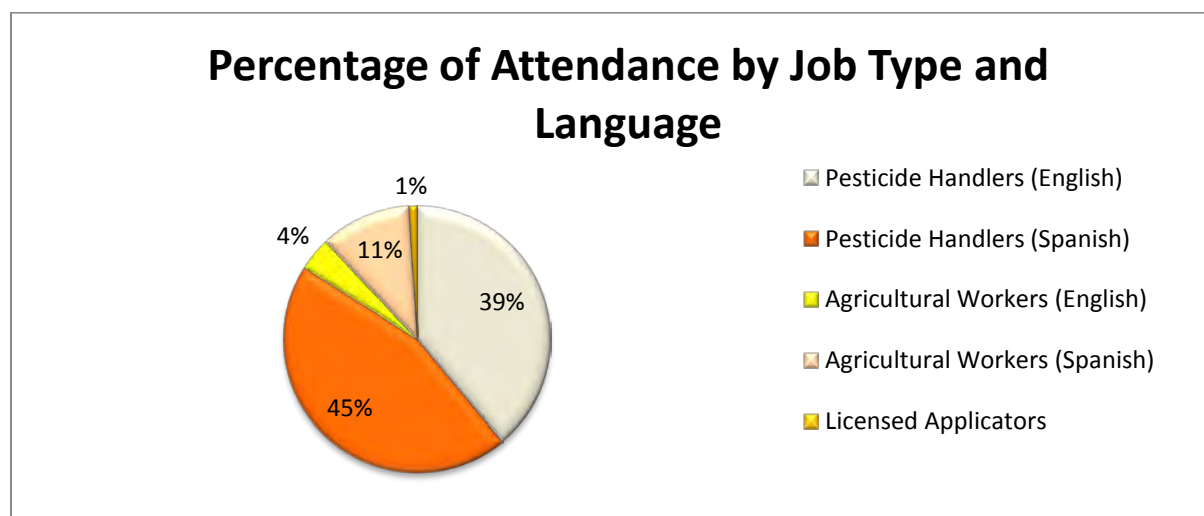
Among the more popular services provided by ACT staff are free pesticide safety training courses for pesticide handlers who work directly with pesticides while mixing, loading, and applying agrichemicals, and agricultural workers who perform tasks such as pruning, harvesting and irrigating crops.

Pesticide safety training course attendees learn how to work safely around pesticides or in areas where pesticides have been applied and 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.

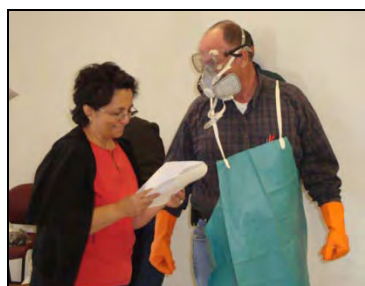
The training courses are provided in English and Spanish and are open to anyone who would like to attend. The courses are also promoted to safety trainers who want to observe a training to gather ideas for their own sessions and growers who would like to learn more about state and federal laws pertaining 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 FY 2011, ACT staff presented pesticide safety training to 469 people who were employed at 49 agricultural operations throughout Arizona. As is noted in the following chart, 84% of the people who attended the training were pesticide handlers, 15% were agricultural workers, and 1% of the attendees were licensed pesticide applicators.

Of the unlicensed pesticide handlers, 182 attended a two-hour pesticide safety course in English and 213 attended the same course in Spanish. Five licensed applicators participated in the two-hour course and 69 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. Twenty of the 69 agricultural workers who attended this training received the information in English and 49 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*



Educators in Arizona, California, Mexico and Tribal Communities” was presented in San Diego, California in July 2010.

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 the final multi-jurisdictional pesticide safety train-the-trainer workshops. As a result of this collaboration, the “Joint Train-the-Trainer Workshop for Pesticide Safety

A total of 64 people representing farms, nurseries, farm worker outreach projects, health clinics, tribal pesticide programs, insurance companies, universities, food safety programs, and regulatory agencies

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

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. Funding for the workshop series was 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.



*An attendee at the course in Tempe participates in a mock pesticide spill cleanup activity.*

In fiscal year 2011, ACT staff partnered with Extension Specialists from the University of Arizona Cooperative Extension Service to provide pesticide applicator pre-certification courses. The courses were prepared 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 139 people attended the courses, which were presented in Tempe, Tsaile, Flagstaff and Willcox. Of the 139 attendees, 94 (68%) passed the exam and acquired an Arizona pesticide applicator's license.

This year, ACT staff designed a new Worker Protection Standard compliance tool called "Pesticide Safety Sheets." The packet of information contains pesticide safety information in English on one side and Spanish on the other. The laminated pages are held together by a single ring so that growers and agricultural employees can either separate the sheets or hang the set in a farm shop, near the pesticide mixing site, or equipment storage area. The Pesticide Safety Sheets provide guidance on the following themes:

- Central location and emergency medical information requirements
- Sample pesticide application log
- Instructions for triple-rinsing pesticide containers
- Application buffer zones requirements
- Bilingual list of personal protective equipment terminology found on pesticide labels

- Useful conversion factors for pesticide equipment calibration
- Bilingual list of environmental protection terminology found on pesticide labels
- Bilingual list of first terminology found on pesticide labels
- Pesticide safety training topics for agricultural workers
- Pesticide safety training topics for pesticide handlers
- Decontamination site items for pesticide handlers
- Decontamination site items for agricultural workers and pesticide handlers

ACT staff serves on national and regional pesticide safety resource review teams and committees. During FY 2011, the American Association of Pesticide Safety Educators asked ACT pesticide program staff to review and edit two articles submitted to the Journal of Pesticide Safety Education. ACT staff also assisted in reviewing brochures and training programs on soil fumigant pesticides.

## Air Quality Compliance Assistance

### *Regulated Agricultural Best Management Practices*

The Regulated Agricultural Best Management Practices (RABMP) program has completed its eighth 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.

- 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 2011 there were 190 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 2011 there were 20 trainings, presentations, and promotions of the program to agricultural workers and representatives. Outreach and training reached 1,716 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 2011, eight forecasts were sent to 243 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 2011, 1,184 copies of the newsletter were sent to 296 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 2011, fifteen articles and ads were published with a readership of 18,209 people.
- An Ag Air Quality publication was created, designed and distributed with the ACEP program Coordinator. The publication discussed the Ag BMP program and the changes due to the addition of animal operations to the program. Articles also discussed other air pollutants and NRCS programs that address air quality. Approximately 3,000 publications were mailed or distributed to producers statewide.
- 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 2011, twelve issues were corrected.

A new challenge in fiscal year 2011 was EPA's partial disapproval of the Ag BMP program. The EPA felt that the best management practices definitions lacked "specificity" and "enforceability" due to the lack of a mandatory reporting system. During the fiscal year 2011 the Governor's Ag Best Management Practices Committee and the Technical Workgroup has reconvened to address the request from the EPA. The workgroup was



tasked to redefine the BMPs and create a reporting system to capture the needed information that will meet EPA's request.

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. In fiscal year 2011 outreach continued with meeting producers, attending industry functions and reestablishing stakeholder meetings.

## Agricultural Conservation Education Program

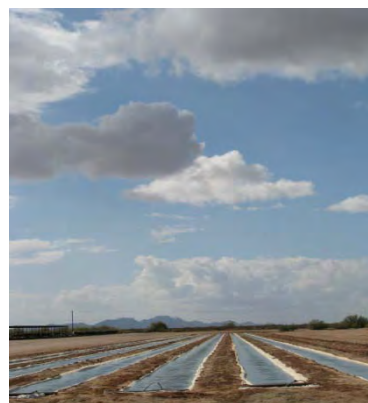
In September 2002, the Arizona Department of Agriculture's (ADA) Agricultural Consultation and Training Program (ACT) began assisting the agricultural community through a partnership with the United States Department of Agriculture's, Natural Resource Conservation Service (NRCS). Since its inception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

The conservation of natural resources is achieved through CTA. CTA provides the technical capability, 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 is primarily assigned to 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 2011 EQIP applications include Air Quality, Domestic Animals and Wildlife, 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 promotes 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 many EQIP and WHIP plans including nine contracts for 2008, 19 for 2009, 26 for 2010 and five for 2011. The total acres under active conservation contracts for 2010 are 10,688 and 2011 acres under contract are 593. Of the Avondale Field Office's five EQIP and WHIP contracts for federal fiscal year 2011 the ACEP coordinator is directly responsible for the management of two contracts totaling 450 acres of cropland and wildlife areas. The EQIP contract is being implemented to improve air quality while the WHIP contract is for developing wildlife habitats that will surround cropland.

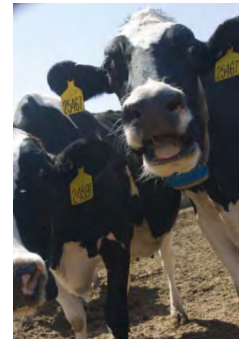


The ACEP Coordinator continues to assist the NRCS Avondale Field Office with project and status reviews, soil loss evaluations and administrative management of EQIP contracts for federal fiscal year 2003, 2004, 2005, 2006 and 2007 totaling 64,765 acres.

The ACEP coordinator also directly assists CAFO owner/operators with meeting state and federal water quality regulations. Utilizing 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 planning for structural practices for waste water utilization.

### *Educational Outreach through the Multi-Agency CAFO Education Group*

ACEP coordinator also meets compliance assistance goals through outreach opportunities which include the CAFO Education Group. The CAFO Education Group is a 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 Feeder's Association, United Dairymen of Arizona (UDA), Arizona and Maricopa County Farm Bureaus, NRCS, Environmental Protection Agency (EPA) Region 9, several Natural Resource Conservation Districts, The University of Arizona Cooperative Extension, ADEQ and ADA. ACEP chairs the CAFO Education Group and facilitates meetings.



Further educational outreach provided by ACEP includes maintaining and updating [The CAFO Ready Reference Guide](#). This concise guide is a collection of 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 was 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. The grant program has been 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 fourth grant cycle was completed in fiscal year 2011. Fiscal year 2011 is the last year that funds for the grant program were available under the current authorizing statute. However, the LCCGP Coordinator is working to

identify unspent grants funds over the previous cycles as well as interest earned in order to offer a final grant cycle in 2012.

During fiscal year 2011, the LCCGP Coordinator worked to establish contracts with those who were awarded grant funding during the fiscal year 2011 grant cycle. The following types of projects were started, and many completed by grantees:

- 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.

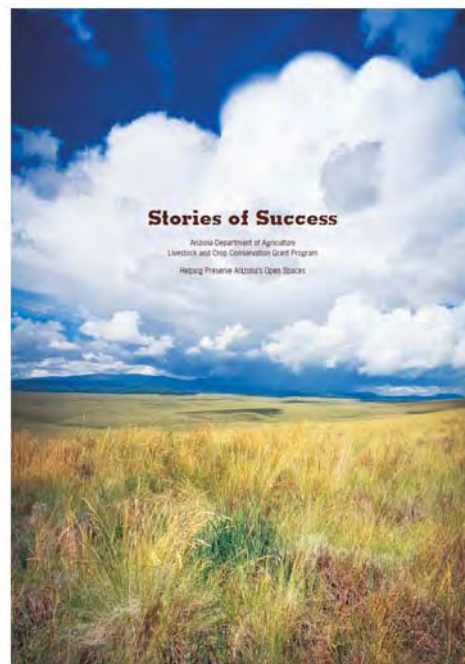


The LCCGP Coordinator continues to promote the program, as well as administer the existing grant contracts from the fiscal year 2005, 2007, 2009 and 2011 grant cycles. Throughout the duration of the grant project, the LCCGP Coordinator provides administrative support and information, answers questions and concerns and assists the grantee with reimbursement and funding advance requests. At the close of FY11, 52 of the 56 grantees from the fiscal year 2005 cycle, 54 of the 70 grantees from the fiscal year 2007 cycle, 36 of the 63 grantees from the fiscal year 2009 cycle and 18 of the 43 grantees from the fiscal year 2011 cycle have completed their proposed grant projects. Additionally, throughout fiscal year 2011, over \$1.3 million was disbursed to grantees to work on their contracted projects.

Throughout fiscal year 2011, 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.

In fiscal year 2011, ACT personnel finalized a publication titled, “Stories of Success”. The 45 page book contains testimonials from previous grantees as well as colorful photos and descriptions of projects funded by the program. The purpose of the publication is to highlight the program’s success.

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. There are currently 84 active grants being monitored.



## 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 2011, Arizona's State Plan was approved by the U.S. Department of Agriculture's Agricultural Marketing Service (AMS), and a cooperative agreement, which provided \$1,175,326.21 in grant funds to the ADA, was executed on October 1, 2010. The SCBGP-FB Program Coordinator worked with sub-grantees to execute grant award agreements, and provide guidance and assistance with quarterly reports and quarterly reimbursements.

In fiscal year 2011, the SCBGP-FB Program Coordinator worked to update the Arizona Specialty Crop Guide that was originally published in 2008. The guide is an educational reference for consumers, which includes:

- Where our food and plants come from and the benefits reaped from buying Arizona grown produce and plants
- Directory of Farmer's Markets and U-Pick Farms
- Listing of Arizona Specialty Crop availability by season
- Agriculture Education Programs offered by state educational institutions
- Career Opportunities in Agriculture
- Food safety information (What's being done and what consumers can do)



On January 4, 2011 AMS announced the availability of \$55 million in federal fiscal year 2011 funding. Each state department of agriculture is eligible to receive a base grant of \$180,641.84. 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 2011 base grant amount plus the AMS assigned value of specialty crop production for Arizona is \$1,168,025.69. The SCBGP-FB Program Coordinator submitted the Arizona State Plan to AMS on July 13, 2011.

## 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 2.5 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 producer from district two (Maricopa, Pima and Pinal Counties)
- Two producers at large

### **Fiscal Year 2011 Financial Status - Arizona Citrus Research Council**

Revenue	\$31,611.74
Expenses	\$35,009.60*

\*The Citrus Council fund balance is more than adequate to cover the difference between expenses and revenues in FY 2011.

## 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 23 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 2011, the Council continued to support research projects by granting over \$120,000 to the University of Arizona. Some examples of research grant projects include insect management for desert lettuce, optimizing management of downy mildew on lettuce, improving lettuce production through utilization of spike wheel liquid injection technology, sampling methods for optimizing soil test based phosphorus fertilizer, evapotranspiration (ET) estimates and crop coefficients for Iceberg Lettuce using Weighing Lysimeters.

### **Fiscal Year 2011 Financial Status-Arizona Iceberg Lettuce Research Council**

Revenue	\$ 93,293.10
Expenses	\$127,621.45*

\*The Lettuce Council fund balance is more than adequate to cover the difference between expenses and revenues in FY 2011.

## 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 spatial variation in wheat yield and protein using soil and plant sensors, reducing Cadmium accumulation in Durum wheat grown in Arizona, tillage and nitrogen management to maximize profitability on wheat following cotton. Annually, the council funds the small grain variety test trials used by producers to evaluate the varieties available. More than \$74,000 was spent on research projects during fiscal year 2011.

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<sup>®</sup> crop in Arizona and Southern California and publishes the results for buyers around the world.

### **Fiscal Year 2011 Financial Status - Arizona Grain Research and Promotion Council**

Revenue	\$119,448.95
Expenses	\$166,792.73*

\*The Grain Council fund balance is more than adequate to cover the difference between expenses and revenues in FY 2011.

## 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 once per year or as necessary.

## 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

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 Department completed the relocation of the laboratory into two separate, smaller laboratories. The relocation of its laboratory operations put some constraints on the types of testing that could be accomplished and where certain types of testing could be conducted. The table below illustrates where testing is conducted.

<b>Service</b>	<b>1520 W Adams</b>	<b>250 N 17<sup>th</sup> Ave</b>
Entomology – M	c limited	
Entomology – PCR	c	
Plant Pathology – M	c	
Plant Pathology - Elisa	c	c
Plant Pathology - PCR	C	
Seed – Export	c	
Seed – Regulatory	C	
Brucellosis – Milk		C
Meat – Food Safety		C
Food Safety	C (Some PCR methods)	C
Dairy Micro		C
Dairy Antibiotics		C limited
Dairy Pesticides	c	c
Dairy Aflatoxin	c	C limited
Feed	C	
Fertilizer	C	
Pesticide Formulations	C	
Pesticide Residue	c	C

**Legend:**

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

250 = State Laboratory Services building at 250 N 17<sup>th</sup> Ave, Phoenix

c = capability to perform testing under certain conditions with added/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 purchased new software to improve its capability for detection of unknown chemical contaminants.

Federal, State and local governments continue to work 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 is a member of the FERN for both chemical and microbiological testing.

## 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.

The laboratory continues to monitor the increasing demand for ISO (International Organization for Standardization) certification for laboratories providing regulatory testing. The evolving standard for laboratories similar to SAL is ISO17025. As federal agencies complete the implementation of ISO certification within their own labs, it is anticipated that the federal agencies will require state laboratories to become similarly certified. Such certification is expensive and time intensive; therefore, SAL will continue to monitor the situation and remain a part of the conversations with regard to such certification requirements.

### *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. Last year, in accordance with procedures related to the relocation of the laboratory, SAL underwent a special on-site audit; SAL passed the audit with flying colors. Such audits, combined with analyst

participation in an annual proficiency testing program ensure the quality of the analyses conducted by the dairy microbiology laboratory.

### *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; 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; seed sample PTP by the Association of Official Seed Analysts; pesticide product PTP by the American Association of Pesticide Control Officials; pesticide residue PTP by the Environmental Protection Agency and mycotoxin sample PTP by the American Oil Chemists Society.

## Animal Disease Detection

The laboratory collected 253,169 blood samples and tested raw milk for the bacteria responsible for causing brucellosis, a severe reproductive disease in cattle and other animals. In humans the disease is known as undulant fever. Brucellosis may be transmitted from animals to humans through non-pasteurized milk. Since the 1940s, the USDA has sought to eradicate brucellosis from the U.S., resulting in the current Cooperative State Federal Brucellosis Eradication Program. States are designated brucellosis free when none of their cattle or bison is found to be infected for 12 consecutive months under an active surveillance program. Arizona has been brucellosis-free since 1987. The last area in the U.S. known to have an active presence of brucellosis is in and around Yellowstone National Park. Monitoring is still conducted in Arizona due to the presence of a very large slaughter facility in Tolleson where some of the cattle processed originate from the Yellowstone area.

## Food Safety

The laboratory participates in the Department's Food Safety and Quality Assurance Program by testing agricultural commodities for food-borne pathogens in the lab. Raw meat, ready-to-eat products, and animal carcass swab samples are tested in support of the State's Meat and Poultry Inspection Program which is a cooperative program of the U. S. Department of Agriculture Food Safety and Inspection Service program.

The U.S. Food and Drug Administration (FDA) certifies the dairy microbiology lab and individual analysts to perform testing on dairy products, dairy product containers, and environmental dairy water samples to allow export of Arizona's milk and milk products to other states. Tests

conducted at SAL include bacteriological analyses, enzyme activity for proper pasteurization of dairy products, antibiotic residues, and other indicators of milk safety and quality.

## Forensic Testing

The SAL scientists test samples collected during investigations of off-target spraying of pesticides during agricultural use, incorrect application of pesticides to homes for the prevention of termite infestations or insect control, illegal discharge of pesticides into the environment, or failure to take necessary actions to protect industry workers.

Sample types received include water, soil, produce, foliage, animal tissues, air, clothing and surface swabs. Complicating the variety of samples are the over 11,000 pesticide products registered for use in Arizona. Analysis of these forensic samples requires advanced scientific tools and experience.

## Consumer Protection

The expertise of the Lab's personnel with the chemistry of pesticides is further used to protect Arizona's consumers and industry through the provision of analysis of home-use, commercial and agricultural pesticide products. The Department collects samples each year from the consumer and industrial market place. Chemists then perform analyses to determine whether the content and quality of the active ingredients are correctly displayed on the product label. This regulation not only protects the end-user from potential financial losses, but it also plays a key role in protecting pesticide applicators and farm workers against harmful exposure.

The laboratory also analyzes commercial feed and fertilizer products to determine whether the amount of ingredients guaranteed on the label are accurate. This ensures that consumers receive agricultural products that meet the label guaranteed quality. For example, a fertilizer may have a grade guarantee of 10-20-5 which indicated the product must contain 10% nitrogen, 20% phosphorous and 5% potassium and the lab would run tests for all three ingredients. Similarly, a feed product may be guaranteed for protein, calcium, phosphorous or other nutrients requiring multiple testing.

SAL analysts conduct testing of commercially available seed products for purity, germination rate, and weed seed content to benefit Arizona's farmers, landscapers, homeowners, golf courses and seed export companies. Analyses were completed on seed samples to provide assurance that the seed label matches its guaranteed performance when planted and does not contain excess harmful weeds. Seed analysts are certified by the Association of Official Seed Analysts.

## 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, 2011. Nine 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 fourth 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 go only 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 generate large quantities of containers that have been properly managed. Others wanting to participate must coordinate this through IAP. This year collections were held at 11 different locations and collected 77,800 pounds of plastic. This brings the total amount of pesticide containers recycled at 241,910 pounds.

This was the fifth year for the unusable pesticide collection program. The program was held in two locations this year at the Maricopa Ag Center and at the Dune Company, Yuma location. These were the locations where the largest amounts of pesticides were 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, sellers and commercial applicators, including those products that the grower no longer knows what they are. Registration is on a first come first served basis.

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 site. This year times were scheduled for participants to help for a smooth flow of traffic. The waste contractor then has their work set out to categorize the wastes and ultimately have them properly disposed.

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 events in Maricopa and Yuma brought in 7546 and 10,893 pounds respectively. For the program this year this works out to be approximately \$2.44 per pound for disposal.

In addition to the Arizona collection, \$8640 was used to help the Navajo Nation. This was a cooperative effort between Arizona, New Mexico and the Navajo Nation. This helped to dispose of 3389 pounds. We received additional funding from the EPA to finish up a project that was started last fiscal year. This project was to dispose of pesticides along the border. This program helped to dispose of over an additional 50,000 pounds of unusable pesticides from the Arizona / Mexico border region.

## 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](http://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 returned stating what a pleasant experience it was and how great the employees were.

### *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 \$100 per product pesticide registration (this fee was raised \$10 this year (\$110) 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 2011, \$1,116,764 in fees was collected for the WQARF: \$47,489 in fertilizer fees and \$1,069,275 in pesticide registration fees.

A different twist was put on things this year. The legislature gave state agencies the ability to lower fees to keep fund balances low to help avoid having the funds swept. So this year the fees for seed licenses were set at \$0 and the fee for fertilizer specialty products was lowered to \$40 and the tonnage fee was lowered to 20 cents.

### *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 2011 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 914 hours. The number of training courses which were approved for the year was 400. The University of Arizona Cooperative Extension Service sponsored 45 of these training sessions and 260 were sponsored by companies in the private sector. ESD, ACT and Federal classes accounted for 41 of the courses. California Extension Service conducted 13 courses and 41 other courses were online.

### *Testing Center*

Tests administered by the Environmental Services Division include milk haulers, and a myriad of pesticide-use licenses. 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 928-344-7909 (Yuma) or 520-628-6317 (Tucson).

### *Exams Administered in FY 2011*

TYPE OF EXAM	Total Exams	Number Passed	Number Failed	Passing Rate
Aerial Applicator (AAP)	8	8	0	100 %
Commercial Applicator (PUC)	241	188	53	78 %
Custom Applicator (CAA)	0	0	0	N/A
Pest Control Advisor (PCA)	48	25	23	52 %
Private Applicator (PUP)	177	132	45	75 %
Fumigant Endorsement	11	10	1	91 %
Milk Sampler & Hauler	76	73	3	96 %
Cottonseed Sampler	0	0	0	N/A
<b>TOTALS</b>	<b>561</b>	<b>436</b>	<b>125</b>	<b>78 %</b>

The following chart represents the total number of licenses, permits and certificates issued by the Licensing Section during FY 2011:

<b>Licenses and Registrations Issued in FY 2011</b>	
Pesticide - Total Pesticides Registered	12,445
Agriculture Use Pesticides	2,351
Non-Agricultural Use Pesticides	10,094
Fertilizer - Licensed Fertilizer Companies	478
Specialty Fertilizers	3,437
Feed - Licensed Feed Companies	786
Seed Dealers	1,276
Seed Labelers	226
Dairy/Milk Industry Licenses	325

Aquaculture Licenses	53
Egg & Egg Products	102
Meat Industry Licenses	221
Livestock Brand Certificates	2,209
Equine Certificates Issued	90
Certificates of Free Sale	60
Products Certified for Free Sale	2,524
Native Plant Permits Issued	1,165
Number of Native Plants Permitted	43,523
WPS-Worker Cards Issued	5,511
WPS-Handler Cards Issued	4,586
WPS-Trainers Certified	186

The end of the year is very busy in licensing. The following chart represents the total number of pesticide use related licenses issued during the 2011 fiscal year all which expire at years end. Other licenses that expire on December 31 are aquaculture, meat, dairy and pesticides. This brings an additional 12,000 licenses up for renewal during the same time of the year. Additionally, feed and fertilizer tonnage reports for the fourth quarter are due at year's end.

<b>Pesticide Use Related Credential Summary FY 2011</b>	
Grower Permits (PGP)	1,134
Pesticide Sellers (PSP)	126
Ag Aircraft Pilots (AAP)	53
Custom Applicators (CAA)	51
Equipment Tags	510
Pest Control Advisors (PCA)	203
Private Applicators (PUP)	478
Commercial Applicators (PUC)	418
Pesticide Responsible Individual (PRI)	2

<i>Fertilizer Tonnage FY 2011 (in Tons)</i>			
Dry	Bulk	Liquid	Total
62,463	165,517	165,517	464,557
<i>Feed Tonnage FY 2011 (in Tons)</i>			
<b>Total 1,276,706</b>			

# 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. In late March 2010, the division hired two Pesticide Control Inspectors. 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. These inspectors also are responsible for the Non-Food Quality Assurance program inspections. Inspections continued to focus 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, 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 is not monitored on weekends and holidays. Applicators have had to plan ahead and contact the division in advance of weekend monitoring requests for pesticide applications. There are no formally designated Pesticide Management Areas (PMA). The Director designates PMAs. PMAs may be ag/urban interface locations and have a history of concerns known by the ADA regarding nearby pesticide applications. Complaints about pesticide misuse may also be reported by calling either of the two offices located in Phoenix and Yuma. 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. This is a growing concern due to the increased pressures from bedbugs.

### *Agricultural Worker Safety*

Farms, forests, nurseries, and greenhouses 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.

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.

### *Train The Trainer [TTT] Workshops*

During the state financial year, ESD Compliance conducted a total of four English / Spanish Train the Trainer Workshops in Yuma and Avondale Arizona. ESD Compliance Industrial Hygienist also participated in an English / Spanish language Joint Arizona / California / Mexico Workshop in San Diego, California.

### *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 on any of the following dates: November 30, December 2, or 8th.

### *Groundwater Protection*

Close cooperation between the Arizona Department of Agriculture and the Arizona Department of Environmental Quality continued as groundwater sample monitoring occurred in the 6 monitoring wells installed in southeastern Arizona in FY 2010. This coordinated sampling effort included 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*

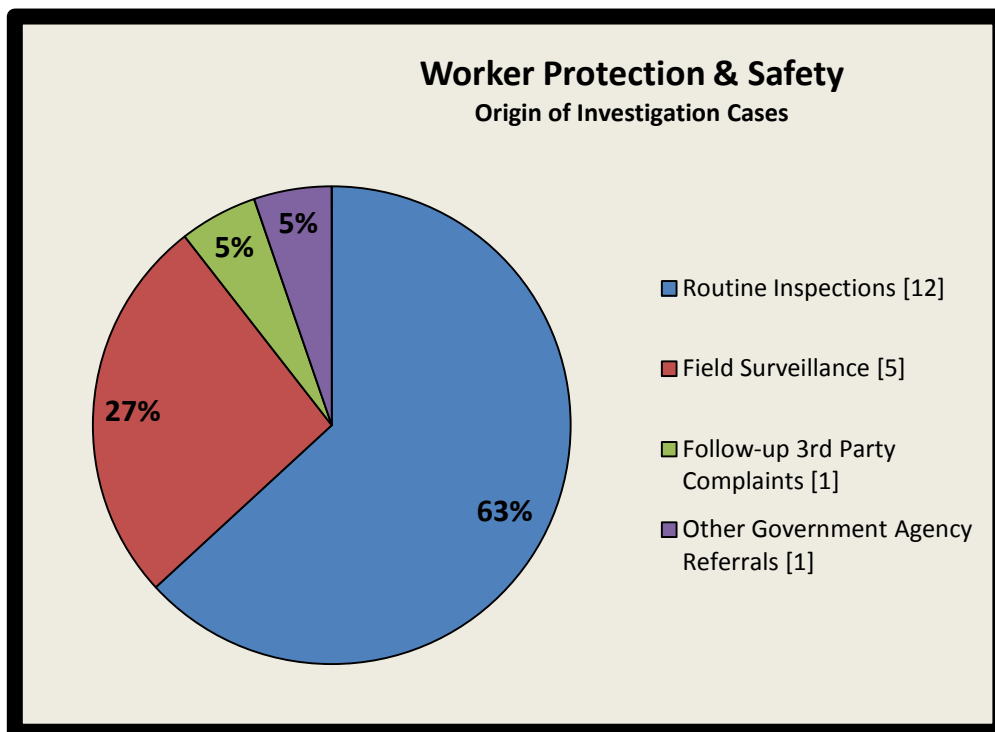
ESD Compliance inspection staff participated in community / industry outreach activities in San Luis, Yuma, Casa Grande, and Tubac Arizona:

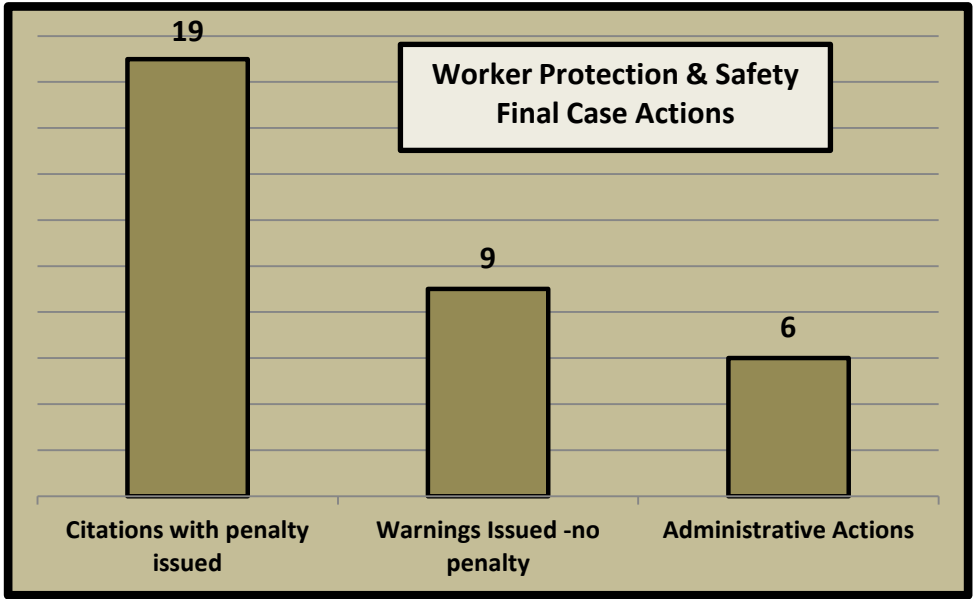
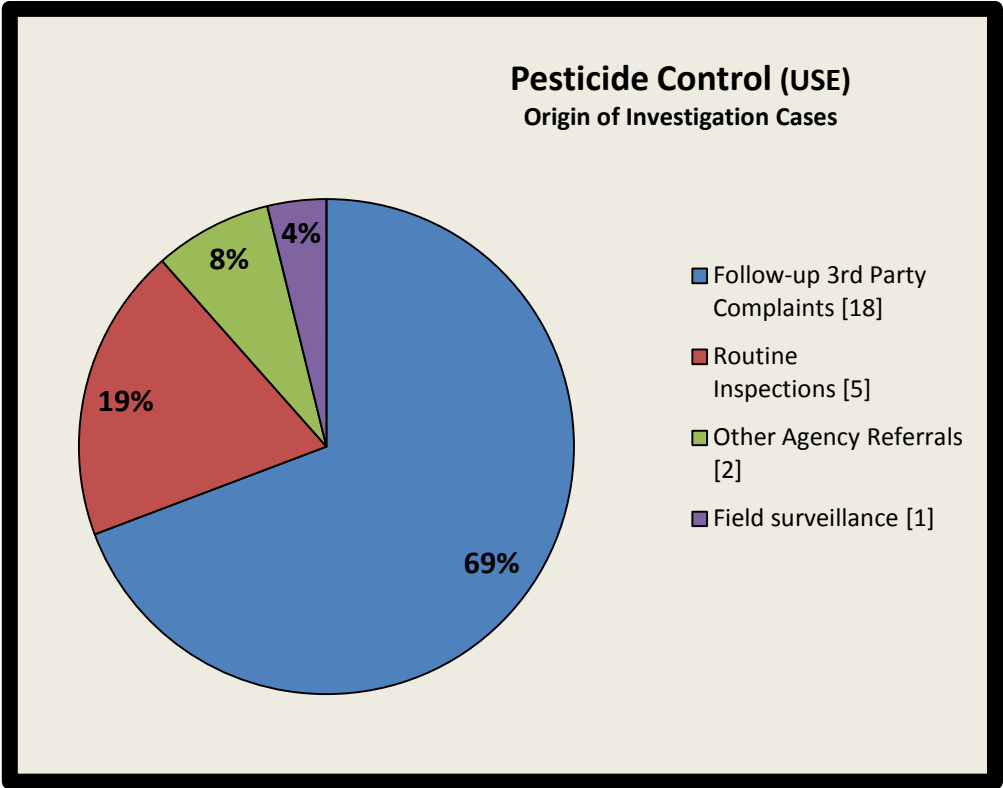
- Dia Del Campesino Health and Information Fair – San Luis, AZ.
- Arizona / California Agricultural Employer Seminar – Yuma, AZ.
- Arizona Farm Worker Multi Agency Enforcement Meeting – Casa Grande, AZ
- 16<sup>th</sup> Annual Arizona Interagency Farm Worker Coalition, Inc. (AIFC) Educational Conference – Tubac, AZ

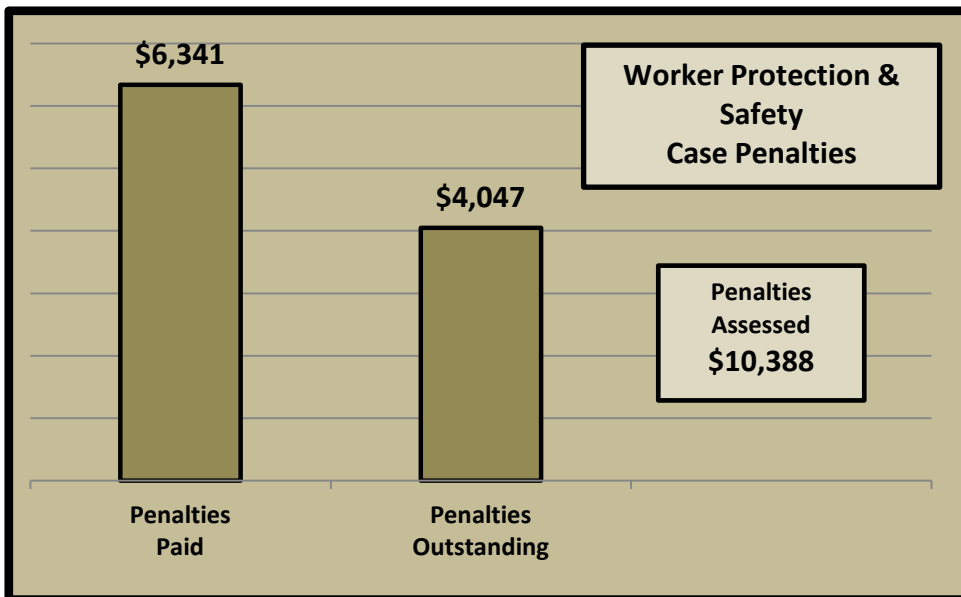
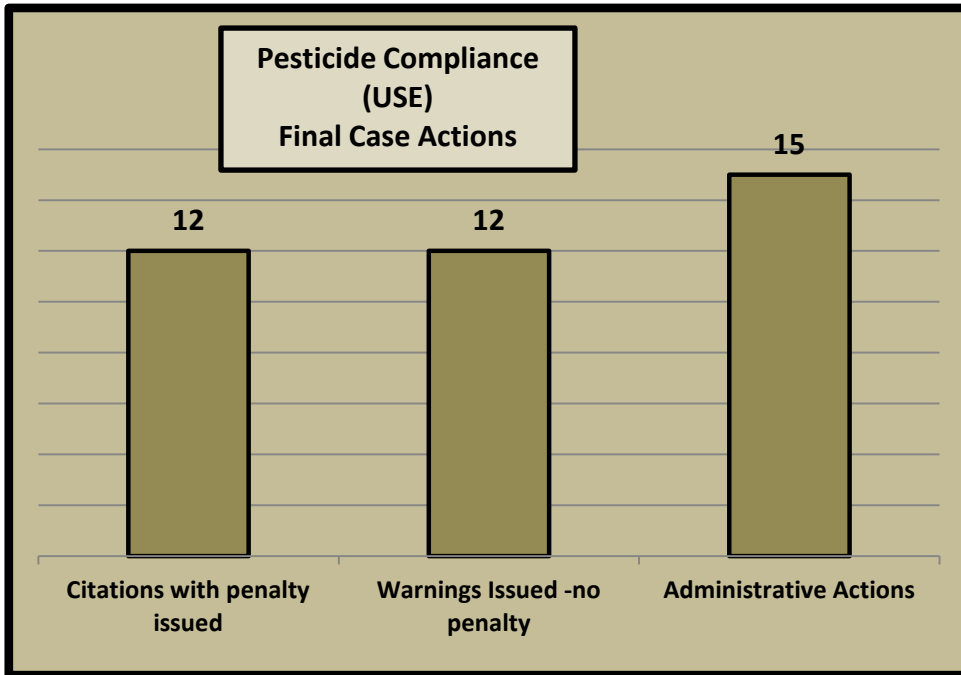
## Training /Conference Attendance

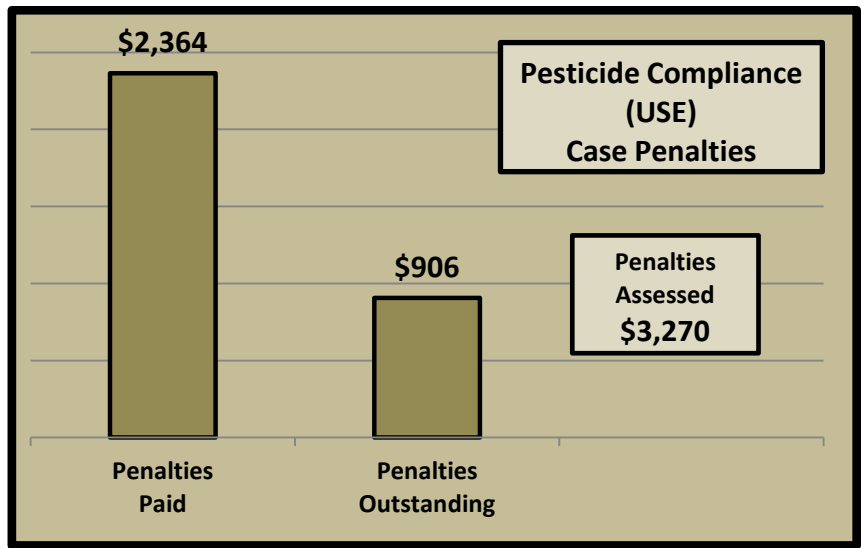
ESD Compliance staff attended training/conferences as follows:

- NCIT Council on Licensure, Enforcement and Regulation (CLEAR) – Nashville, TN.
- ADA & U of A National Pesticide Applicator Training – Tempe, AZ
- Agricultural Employer Informational Seminar – Casa Grande
- University of Illinois & Colorado River Indian Tribe (CRIT) Environmental protection Office (EPO) Integrated Pest Management (IPM) – Parker, AZ
- Pesticide Inspector Residential Training (PIRT) EPA Sponsored Program – Scottsdale, AZ
- AZ Leafy Green Food Safety Training Workshop – Yuma, AZ
- Pesticide Inspector Residential Training (PIRT) EPA Sponsored Program – San Francisco, CA.
- Soil Fumigant Pesticide Inspector Residential Training (PIRT) EPA Sponsored Program – Las Cruces, NM.
- Soil Fumigant Pesticide Inspector Residential Training (PIRT) EPA Sponsored Program – Tampa, FL.
- Arizona Crop Protection Association (AZCPA) – Casa Grande, AZ
- Arizona / California Agricultural Employer Seminar – Yuma, AZ
- Association of American Seed Control Officials (AASCO) – Portland, OR
- Association of American Feed Control officials (AAFCO) – St. Pete Beach, FL
- FDA 50-State Workshop – “A United Approach to Public Health” – Denver, CO
- State FIFRA Issues Research & Evaluation Group (SFIREG) Sponsored Program – Arlington, VA
- Pesticide Regulatory Educational Program (PREP) Sponsored Program – Sacramento, CA
- Western Region Pesticide Meeting (WRPM) Sponsored Program – Sacramento, CA
- State FIFRA Issues Research & Evaluation Group (SFIREG) Working committee meeting Sponsored Program – Seattle, WA









## Pesticide Use & Worker Safety Violations Observed

### Pesticide Control (USE) Violations

**Number of  
Violations**

<b>Label Violation – Storage / Disposal / Transport / General Misuse</b>	<b>18</b>
<b>Record Keeping</b>	<b>12</b>
<b>Drift / Overspray</b>	<b>11</b>
<b>Container Disposal / Storage</b>	<b>5</b>
<b>Operating without a valid license</b>	<b>2</b>
<b>Illegal Application</b>	<b>2</b>
<b>Illegal Sales</b>	<b>1</b>

### Worker Safety Violations

**Number of  
Violations**

<b>Failure to Train</b>	<b>15</b>
<b>Application List not Provided / Posted / Incomplete</b>	<b>12</b>
<b>Failure to Verify Training</b>	<b>11</b>
<b>Decontamination Site not provided</b>	<b>9</b>
<b>Medical Emergency Information not Posted / Missing / Incomplete</b>	<b>7</b>
<b>Safety Poster not Posted / Illegible / Inaccessible</b>	<b>6</b>
<b>Label Violation – Storage / Disposal / Transport / General Misuse</b>	<b>6</b>
<b>Agriculture Safety / Multiple WPS Violations</b>	<b>2</b>
<b>Unsafe Environment</b>	<b>2</b>
<b>Violation of REI (Restricted Entry Interval)</b>	<b>1</b>
<b>Operating without a valid license</b>	<b>1</b>

# Non-Food Quality Assurance

## Marketplace Inspections and Sampling

<i>Sample Analysis for 2011</i>		
<b>Sample Type</b>	<b>Collected</b>	<b>Analyses Reported</b>
<b>Feed</b>	26	61
<b>Fertilizer</b>	39	98
<b>Water</b>	19	1387
<b>Pesticide Formulation</b>	8	12
<b>Pesticide Residue</b>	106	278
<b>Seed</b>	6	36

Pesticide control inspectors inspect and sample animal feed products, fertilizer, pesticide and seed in the marketplace to protect consumers by ensuring that products meet label guarantees. "Cease and Desist" orders are issued on unregistered products, unlicensed companies should the company fail to come into compliance or if products fail laboratory analysis or have other issues relating to the products being mislabeled. The division has been working with other states to nationally target unapproved feed ingredients identified as having health and safety concerns.

Samples can have numerous analyses.

### *Bovine Spongiform Encephalopathy Inspections (Mad Cow Disease)*

The division, under a cooperative agreement with the Food and Drug Administration (FDA), conducts inspections of feed manufacturers and dealers to determine compliance with federal regulations regarding animal feed ingredients fed to ruminants and their potential for human health and safety concerns. During FY2011, the division conducted 35 inspections of facilities in Arizona. The inspections found all facilities were in compliance in keeping prohibited materials out and properly labeling those that can contain certain beef materials.

## Non-Food Quality Enforcement Actions

<b>FERTILIZER</b>	<b>Number</b>
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<b>TOTAL NUMBER OF CASES OPENED</b>	<b>20</b>
Division Generated	3
Routine Inspections	17
<b>NUMBER OF FERTILIZER PENALTIES ISSUED</b>	<b>5</b>
Total amount of penalties issued	\$378.21
Total amount of penalties paid to date	\$163.21
Total amount of outstanding penalties	\$215.00
<b>CEASE &amp; DESIST ORDERS ISSUED</b>	<b>25</b>
Quality Assurance Analysis Failures	7
Unlicensed Commercial Fertilizer Company	6
Unregistered Specialty Fertilizer	12
<b>WARNINGS ISSUED</b>	<b>22</b>
Quality Assurance Analysis Failures	6
Unlicensed Commercial Fertilizer Company	5
Unregistered Specialty Fertilizer	11

<b>COMMERCIAL FEED</b>	<b>Number</b>
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<b>TOTAL NUMBER OF CASES OPENED</b>	<b>35</b>
Follow-up third-party complaints	6
Routine Inspections	27
Referrals	2
<b>CEASE &amp; DESIST ORDERS ISSUED</b>	<b>31</b>
Quality Assurance analysis Failures	3
Unlicensed Commercial Feed Company	28
<b>WARNINGS ISSUED</b>	<b>36</b>
Quality Assurance Analysis Failures	4
Unlicensed Commercial Feed Company	32

<b>Non-Food Quality Enforcement Actions</b>	
<b>SEED</b>	<b>Number</b>

<b>TOTAL NUMBER OF CASES OPENED</b>	<b>4</b>
Routine Inspections	4
<b>CEASE &amp; DESIST ORDERS ISSUED</b>	<b>4</b>
Expired Test Date	4
<b>WARNINGS ISSUED</b>	<b>6</b>
Unlicensed Seed Dealer and Labeler	2
Expired Test Date	4

<b>PESTICIDE</b>	<b>Number</b>
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<b>TOTAL NUMBER OF CASES OPENED</b>	<b>25</b>
Follow-up third-party complaints	3
Routine Inspections	19
Division Generated	2
EPA Referral	1
<b>CEASE &amp; DESIST ORDERS ISSUED</b>	<b>20</b>
State & Federal Unregistered Pesticides	2
State Unregistered Pesticides	13
Discontinued Pesticide Product	1
Misbranding	2
Mislabeled 25(b) exempt	1
Unregistered 25(b) Pesticide	1
<b>WARNINGS ISSUED</b>	<b>20</b>
State Unregistered Pesticides	13
State & Federal Unregistered Pesticides	2
Misbranding	4
Discontinued Pesticide Product	1

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: <b>84</b> Number of Cease & Desist Orders: <b>80</b>
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## *Country of Origin Labeling (COOL)*

For the third 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 as the review process was changed requiring more record collections.

## Office of Special Investigations

The Office of Special Investigations (OSI) is primarily responsible for conducting in depth investigations involving criminal and civil violations of the State agricultural laws and providing support to the other divisions and programs within the department regarding complex criminal and civil cases. The office is comprised of two Special Investigators highly trained to investigate criminal and civil misconduct regarding native plants theft and destruction; theft, killing and cruelty of livestock; illegal slaughter and processing of food animals; archeological site destruction and theft of cultural resources. OSI received 5,607 telephone calls, e-mails and visitors in the Phoenix and Tucson offices: 1,671 dealt with native plant issues, 1650 were livestock related and the remaining 2286 communications related to other issues.

## *Officer Certification, Training & Meetings*

This past year OSI spent many hours training both for their annual requirements and to enhance the training of their fellow officers in the department. 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 is the law enforcement Training Coordinator for the department and is responsible for scheduling officer training and maintaining the training records of all Arizona Department of Agriculture (ADA) certified peace officers. Arizona Peace Officer Standards and Training (AZPOST) compliance division annually audits the agency records to insure the departmental officers comply with the minimum standards. We consistently get high marks and this past year marked the first year in recent history where all officers with the department completed the minimum requirements prior to the end of the calendar year.

This year OSI personnel completed eight hours of proficiency training. This training is in addition to the annual eight hours of continuing education credits that are required. The AZPOST minimum standard for proficiency is eight hours every three years. This requirement does not apply to Supervisors but OSI's Supervisor did attend and complete the training along with the Tucson OSI investigator and all officers with the department.

The proficiency training was divided into two blocks of four hours each. The first block was devoted to CPR re-certification which OSI's officers were in need of. One new innovation in CPR is the chest compressions only method, no mouth to mouth breathing just steady and consistent compressions for as long as it takes until someone takes over. Apparently there is some factual evidence to demonstrate that the steady and consistent chest compressions does enough or more to revive a person than the old two breaths and fifteen compressions method. We



*AED device and dummy*

performed both for good measure.

We also learned how to use the Automatic External defibrillator (AED) which is in place in our building and there is a prescribed method of use on each defibrillator.

The second block was four wheel drive training. Both OSI investigators are assigned four wheel drive vehicles due to the nature of their off-road activities in investigations in remote, hard to reach areas. The training was held in Navajo County by a Navajo County Sheriff's Deputy who is an AZPOST certified driving instructor specially trained in four wheel drive application. OSI investigators managed to hang onto the wheel and control their respected vehicles and passed the grueling driving test for four wheel drive certification.



SI Investigations Supervisor articulating a 45° hill with moguls in order to pass the 4x4 driving test.



OSI Tucson Investigator coming off the ground during his 4x4 driving test.

In addition to the proficiency training OSI Investigators also have to have at least eight hours of continuing education credits. On April 5th and 6<sup>th</sup>, OSI Investigators attended AZPOST's basic background investigations course. The curriculum is a two day instruction on how to complete background investigations for potential new law enforcement hires to the Department. Although OSI is not currently involved in conducting these investigations we now have the training to do so at the Department's request. The background investigation is a crucial step prior to sending a potential new hire through the physical, mental and polygraph exam's which can be costly for a department. The background investigation can determine if the potential new hire possesses the integrity and moral aptitude expected of a new employee. This training completed OSI's AZPOST continuing training requirements for the year.

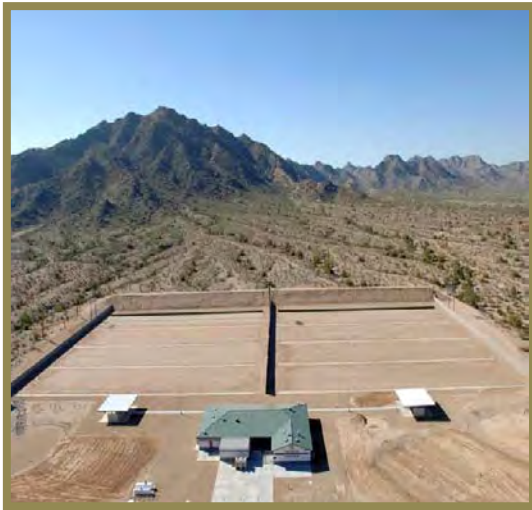
A new program the department has signed onto is the 1033 Program offered by the Department of Defense (DOD). OSI Supervisor is the Point of Contact (POI) for the new program. The program refers to Section 1033 of the 1997 National Defense Authorization Act (NDAA) which authorizes the Secretary of Defense to transfer excess Department of Defense personal property to federal, state and local law enforcement agencies. There is special consideration provided to law enforcement agencies that are directly involved in counter-drug and counter terrorism activities. The fact that Arizona is experiencing a significant increase of illicit drug and weapons activity throughout the state and our somewhat open and porous border gave many Arizona law enforcement agencies this special consideration.

Currently there are 17,646 federal, state and local law enforcement agencies from all 50 states and 3 US territories signed onto the program. There has been nearly \$2.1 billion worth of property transferred since the beginning of the program. The property is primarily military surplus but there are items such as

mobile homes, semi-trucks, portable shower and restroom trailers, computers, radio equipment, helicopters, airplanes, boats, passenger cars and trucks.

OSI's initial goal was to procure rifles for our certified officers. We are currently on track to receive 10 M-16 rifles. The rifles will enhance our protection and provide protection for others when we find ourselves in remote areas performing investigations where there is the potential to come under fire from drug cartel gangs which have infiltrated our state. We also find ourselves out in the field performing investigations that involve the abandonment and cruel mistreatment of horses which have been left in the wild by drug and illegal weapons traffickers. This danger is ever present and to be able to defend our lives and the lives of those assisting us with the same firepower as the bad guys.

OSI expects to have the rifles by December 2011 and as a result of our acceptance to have these rifles transferred to us we must have the training to use them. OSI Training Coordinator was able to get a slot in the only AZPOST certified rifle Instructor School in the state which was held in May. The Department currently has two AZPOST firearms Instructors one of which is the OSI Supervisor.



*Buckeye Hills Law enforcement Range*

The Rifle Instructor School was taught by the Maricopa County Sheriff's Office (MCSO) Range Masters at the Buckeye Hills Law enforcement Range Southwest of the town of Buckeye off State Highway 85. The \$7 million range is state of the art but the firing lanes are still gravel and concrete and when training to be a rifle instructor you are required to perform many drills going from a standing position to a prone or kneeling position for proficient shooting techniques. The field training was intense but the instruction was excellent and by the end of the week The OSI Supervisor qualified with a 245 out 250 on the range. One miss out of the pie shaped circle constituted 5 points off.

The passage of a written test on the tremendous amount of knowledge base presented by the instructors was required and the OSI Supervisor passed by scoring 94 out 100 possible. The test included windage and elevation calculations; firearm nomenclature; ballistic coefficient calculations plus more. OSI is currently working on the outline for the training for the certified officers and we expect it to cover at least 3 days of classroom and field instruction.

OSI's Investigations Supervisor is Arizona's State Director for the Western States Livestock Investigators Association (WSLIA). The Association holds an annual training seminar and Board meeting 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 most often specific to rural crime and enhanced training for the rural crime officer.



*OSI Supervisor Zeke Austin giving State report at WSLIA annual meeting.*

WSLIA also holds its general meeting at the same time in order to cut down on costs. During the general meeting all States and Provinces give a report to the assembly regarding changes if any to their respective department or agency. This is presented by the State or Province Director. There is also a Board meeting of the International Livestock Identification Association (ILIA) held at this time also.

The WSLIA has been able to provide scholarship funds to support two member's children to help defray the cost of college. In the past we were struggling somewhat and with the addition of a pre-conference rifle raffle, which is donated every year, we have been able to build up our scholarship funds to the point where we can now give 2, \$1000.00 scholarships to member's children who apply. In the past we have only been able to give one scholarship.

A large block of this year's training was on Bovicide, livestock death investigations, of which OSI has played a major role in investigating and adjudicating many such cases in Arizona throughout the years. The training was presented by RCMP Sgt. Chris Reister who is assigned to the Alberta livestock identification services department. OSI played a major part in the training due to the fact that a major case presented to the group was an OSI adjudicated case which sent a man to prison for 5 years for killing 19 steers south of Winslow some years ago. Sgt. Reister's presentation was well received by the WSLIA membership.

Another block of the training was several hours on case law that effects how law enforcement officers handle search and seizure in their respective jurisdictions. This presentation was covered by the honorable Judge Tom Watkins and Idaho Public Defender Scott James. Both have given presentations to WSLIA and the training has always been excellent. These gentlemen have agriculture backgrounds and are strong proponents for agriculture.

WSLIA also gets involved in animal identification and the continuing controversy over the national ID program and its movement. OSI relies on many States to assist them in animal ID and the associated paper trails. A strong system is necessary to conduct in-depth, detailed investigations involving the movement and transportation of alleged stolen livestock. With that in mind the late Dr. Dave Morris, who will be greatly missed, gave the membership an update on the upcoming Interstate Certificate of Veterinary Inspection (ICVI) and the fact that brands are not an official form of identification on the form. As Director from the State of Arizona, the OSI Supervisor signed a resolution presented by the WSLIA board to send a letter to Secretary of Agriculture Vilsac regarding our resentment of this fact. WSLIA requests a re-review because as part of the Brand States Working Group OSI and WSLIA believe that brands should be recognized as a form of identification for those states that use them.

In July OSI's Supervisor attended the 64<sup>th</sup> Annual meeting of the International Livestock Identification Association (ILIA) in Calgary, Alberta, Canada. Arizona is a charter founder of this organization and has continued membership in the organization since 1946. The group was originally organized as the International Brands Committee and Arizona signed on as a charter founder and has had several past presidents. The emphasis of the organization is animal identification and the department continues to have a voice in animal identification with this organization by continuing to sponsor OSI's attendance. They also support and encourage legislation that provides for laws regarding inspections of livestock for ownership.



*Spruce Meadows, Alberta, Canada and  
The flags of the countries represented*

The Canadians really did the organization well and the meeting was attended by nearly 300 people from six different countries. This was the largest group ever assembled by the ILIA. The setting was the famous Spruce Meadows where past Olympic trials are held for the equestrian portion of the Olympics.

We immediately got down to business and no words were minced because the entire first session focused on the mandatory law governing the movement of livestock interstate in the US and having the prescribed identification for traceability. The individual animal requirement is not new and accept the fact this is going to happen.

From an investigation stand point it is good to have this traceability and OSI believes this will most definitely cut down on livestock theft throughout the state and the country.

Another session was on the marketing of horse meat. The Canadians provide facilities for the slaughter of horses and they also have a province which consumes a large amount of horse meat.

Canada is in the process of building two more horse slaughter facilities and it would be tragic if the US passed a law that would stop the movement of horses out of the country for slaughter. Currently Japan actually pays up to \$6000.00 for one horse. Japan ships the horses alive and while in transit they feed them to fatten them up for their form of slaughter and consumption. Horse meat is a viable and marketable commodity.

OSI is concerned about this issue due to the amount of abandoned horses found in the desert and the suffering that goes along with that. OSI was instrumental in convicting an individual for cruelty to animals for turning his poor horse loose in the desert. OSI subsequently went door to door in the area believed to be where the horse came from until we nailed down the owner.

The group went on a field trip to a Canadian livestock market where they demonstrated how they read Radio Frequency Identification (RFID) tags on large groups of cattle at one time. OSI was impressed at how many tags could be read utilizing the equipment in the alley. The equipment is a double check in the event they miss one and they get instant results.

OSI worked with the Native Plant Program Manager and department technicians to design a new program for Native Plants. The program has some glitches that are being worked out but we believe this is a big step in the right direction to help us and the permittees down the road to keep track of native plants to help ensure their protection. We also will be able to query more statistical data from this program as opposed to the old one.

In February OSI attended a meeting regarding the BIOBLITZ that will occur at the Saguaro National Monument in October. A BIOBLITZ is an opportunity for people of all ages to join the park and record all the plants and wildlife found there. OSI will have a booth at the site which talks about the Native Plant program and the laws that we enforce. According to what we learned at the meeting it is possible that someone could find a new species of plant or critter as a result of the BLITZ.

In May the OSI investigator stationed in Tucson gave an interview to Brad McKee, editor of Landscape and Architect Magazine. The article was on Arizona' Native Plant Law. OSI is charged with the enforcement of this law and Special Investigator Reimer gave a great interview and demonstrated his professionalism and dedication to the department and to the protection of our native plants.

### *Enforcement Activity*

A highlight for OSI this fiscal year was the sentencing of Jason Lon Kirby for the theft of 202 cattle from an Arizona rancher. OSI discussed the case in the last annual report and at that time Kirby was sitting in the Pinal County Jail awaiting trial. Kirby decided to accept the Attorney General's plea agreement and he is currently spending his two and a half year sentence in the State penitentiary in Florence. When he gets out he will be on supervised probation for 7 years and will be expected to begin payment on his \$500,000.00 restitution to the rancher. He will also be spending 40 hours on community service work.

A native plant highlight came in January with the plea agreement of Dean Pavelich, of Superstition Cactus. Pavelich plead guilty to one felony count of violation of the Lacey Act. The Act is a federal law which protects plants and wildlife from theft and destruction. Pavelich can continue to do business, but was required to pay a \$1345.00 fine, serve 20 hours of community service and is on supervised probation for the next three years. Twenty six saguaros and one truck were confiscated from Pavelich and not

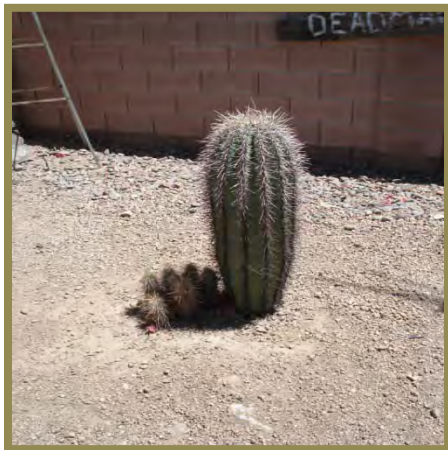
returned. The saguaros have been placed at the Arizona Game and Fish Department's Regional office in Mesa. OSI's counterpart with the BLM made this case.

In March the OSI investigator stationed in Tucson was asked to participate in the actual micro-chipping of numerous saguaro cacti in Saguaro National Park. Several years ago there were meetings referencing this very thing, but it did not get off the ground. The National Parks system felt that it was a good idea and proceeded on their own on some of the saguaros on the park. OSI observed while the National park service performed the actual micro-chipping. OSI hopes in the future that we can purchase the equipment to start our own saguaro micro-chipping program on State Land.

OSI's criminal referrals were up this fiscal year. There were 44 cases of criminal activity involving native plants and livestock opened of which 27 resulted in successful conclusions. The number of referrals, both criminal and civil, was up slightly from last year. There are several livestock cases still under investigation pending laboratory results and follow up interviews. OSI is also continuing to work closely with the BLM, Arizona Game and Fish and now the US Fish and Wildlife Service on several native plant and cultural resource cases.

### *Native Plants Investigations*

The Arizona Native Plant Law was established to protect those plants in the original growing sites. The law requires a person to have a State permit to remove and/or transport any protected native plant taken from its original 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. It is also important that the program continue to provide highly trained, skilled investigators to protect our native plants and cultural resources.



*Small saguaros are a prime target for theft.*

The salvagers can now record the temporary and then the subsequent permanent location of the plants they sell and OSI has provided the form.

The new database will also default to a 30 day period of time for the removal and transportation of the native plants unless the salvager asks for more time.

The inventory form did create some controversy but OSI and the Division worked closely with those who questioned the new form and we

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, if requested, from the time of issuance, unless the property is sold, and a subsequent agreement 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 a destination address for every plant he or she might have removed nearly a year ago.



*Destruction of native plants will not be tolerated.*

were able to come to a logical consensus. The inventory form is now an integral part of the process.

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 duplicate a record of the inspection is required before we issue a permit to move across or within our State.

## *Livestock Investigations*

OSI investigators routinely handle complex criminal investigations involving livestock. OSI is called upon by the Officers and Inspectors of the Animal Services Division to formulate and send out all points bulletins (APB) on missing or stolen livestock. OSI sent out fifteen APB's this fiscal year claiming 107 missing cattle and 9 horses and mules. Of the missing livestock, 51 cattle and 4 of the horses and mules were recovered. The remaining missing livestock on the APB's are now considered stolen and the investigations are open and ongoing.

OSI investigated eight cases of livestock killing or death comprising 10 cattle and one horse. One case is awaiting ballistic results from the Arizona Department of Public Safety Crime Laboratory. Two cases were un-founded and five were closed due to lack of evidence of a crime or undetermined cause of death. The number livestock death cases are down by 50% from last year which is a good thing.



*Stolen cattle occasionally show altered brands. OSI overlaid this photo with the owner's brand in red.*

Livestock theft investigations are on the rise. There were fourteen cases of livestock theft reported which includes those on the APB's. There were 142 cattle reported missing and/or stolen on these cases. Eight cases are still under investigation.

Cruelty cases continue to be part of OSI's investigations. OSI has been successful in the past in adjudicating felony cruelty cases. Occasionally OSI is called upon to investigate cruelty to cattle. OSI was requested by the Navajo County Sheriff to assist with the investigation of alleged cruelty and subsequent death of one cow and the near death of a calf. The

case alleged that a disgruntled neighbor was snaring the cattle which resulted in them being caught in wire and the resulting injuries were such that a cow had to be euthanized.

There was also a calf involved but the calf is alive and well although it is missing a hind foot from the hock down. After an in-depth investigation OSI determined the cow was caught in fence wire that had been down for some time and was not as a result of criminal activity. The calf case was also found to be not criminally related. The calf had suffered from frostbite resulting in the sloughing off of the hind right hind foot and a portion of the left hind toe. There is case history of this very thing happening in other parts of the country.



*Calf with frost bite. The hoof did slough off.*

## *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.

OSI's supervisor has previous experience as a Food Products and Safety Inspector with the Department and continues to work closely with the Food Products and Safety Compliance Officer 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 are 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. OSI has the authority to enforce the laws 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.

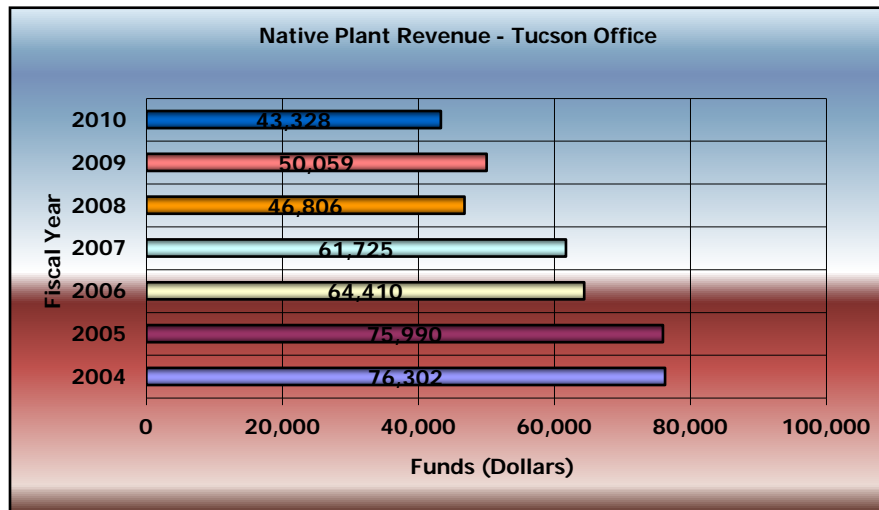
## *OSI Administrative Statistics*

During the fiscal year, a portion of the OSI investigator duties in the Tucson office is the issuance of native plant transportation and removal permits. The schedule is four hours 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. This same investigator is charged with the required response letters to those entities sending in a Notice of Intent to remove and/or destroy native plants on their property. During the fiscal year, OSI in Tucson prepared and sent 145 response letters out to private, local, state and federal entities who have submitted the appropriate notices to our office.

As a result of the administrative duties of the OSI investigator in Tucson the OSI supervisor tracks the permits and tags issued along with the revenue collected. Below is a breakdown of the permits and tags issued and the revenue collected.

<b>NATIVE PLANTS</b>					
<i>Monthly Permits Tags, Seals &amp; Revenue</i>					
<b>Month</b>	<b>No. of Permits</b>	<b>Saguaro Tags</b>	<b>Regular Tags</b>	<b>Green Seals</b>	<b>Total Fees</b>
July	11	29	501	470	\$1,952.50
August	16	71	210	1,216	\$1,559.40
September	25	116	387	1,623	\$2,249.10
October	36	118	479	1,823	\$3,008.45
November	23	114	411	1,471	\$2,920.65
December	22	191	655	784	\$3,966.10
January	37	243	311	998	\$3,761.45
February	25	134	1,059	1,012	\$4,694.30
March	31	135	1,327	1,878	\$5,843.45
April	29	108	482	1,643	\$2,850.95
May	21	94	279	1,845	\$1,909.40
June	36	278	1,518	2,125	\$8,572.45
<b>TOTALS</b>	<b>312</b>	<b>1,631</b>	<b>7,619</b>	<b>16,888</b>	<b>\$43,328.20</b>

*Number of permits, tags and seals issued and revenue received from the Tucson office for FY2011*



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

OSI believes the poor economy has had a significant effect on the Native Plant program. As anyone can see from the above graphs tag and permit sales are down considerably. Initially OSI was tracking to see if the advent of the inventory form was creating the down turn or the economy. When comparing permit and tag sales from month to month and year it was evident that the economy is having the most effect. With fewer new home construction projects in the State there is less need for desert landscapes which generally call for native plants.

The investigators respond to many calls, e-mails, letters and visitors regarding Native Plants and Livestock issues. This communication contains a diverse array of people from the public, private, government and law enforcement sectors. The communication is not always a complaint. Generally the bulk of the call, e-mail, letter or walk-in is for information and/or assistance. A table of these communications is given below to demonstrate the amount of communications on a monthly basis.

<b>MONTH</b>	<b>LIVESTOCK</b>	<b>NATIVE PLANTS</b>	<b>FOOD SAFETY</b>	<b>ANTIQUITIES</b>	<b>OTHER</b>	<b>TOTAL</b>
<b>JULY</b>	<b>105</b>	<b>127</b>	<b>0</b>	<b>0</b>	<b>182</b>	<b>414</b>
<b>AUG</b>	<b>125</b>	<b>168</b>	<b>1</b>	<b>0</b>	<b>185</b>	<b>479</b>
<b>SEP</b>	<b>94</b>	<b>114</b>	<b>2</b>	<b>0</b>	<b>203</b>	<b>413</b>
<b>OCT</b>	<b>121</b>	<b>168</b>	<b>2</b>	<b>0</b>	<b>144</b>	<b>435</b>
<b>NOV</b>	<b>82</b>	<b>121</b>	<b>0</b>	<b>0</b>	<b>154</b>	<b>357</b>
<b>DEC</b>	<b>133</b>	<b>74</b>	<b>0</b>	<b>0</b>	<b>138</b>	<b>345</b>
<b>JAN</b>	<b>147</b>	<b>148</b>	<b>3</b>	<b>0</b>	<b>176</b>	<b>474</b>
<b>FEB</b>	<b>91</b>	<b>116</b>	<b>0</b>	<b>2</b>	<b>174</b>	<b>383</b>
<b>MAR</b>	<b>123</b>	<b>185</b>	<b>0</b>	<b>0</b>	<b>202</b>	<b>510</b>
<b>APR</b>	<b>134</b>	<b>159</b>	<b>0</b>	<b>0</b>	<b>184</b>	<b>477</b>
<b>MAY</b>	<b>181</b>	<b>157</b>	<b>0</b>	<b>0</b>	<b>162</b>	<b>500</b>
<b>JUNE</b>	<b>314</b>	<b>134</b>	<b>0</b>	<b>0</b>	<b>370</b>	<b>818</b>
<b>TOTAL</b>	<b>1650</b>	<b>1671</b>	<b>8</b>	<b>2</b>	<b>2286</b>	<b>5617</b>

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

One final note on OSI: although we are charged primarily with the investigations of the department's complex, detailed and routinely difficult cases we often find that OSI is called upon to wear many hats. A good example of this is when the Wallow Fire erupted in northeastern Arizona, OSI's supervisor stepped up and took charge of the livestock evacuation plan for the department at the request of the Chief Deputy and Emergency Operations Manager of Apache County. OSI was on scene for 20 days straight. OSI organized and mobilized a team of department livestock officers and Inspectors along with two Agents from the USDA Wildlife Services Department. During the course of the evacuation OSI was responsible for assigning the members to notification teams to inform residents of Eagar and Springerville of the impending evacuation. OSI also organized the delivery and subsequent transportation of much needed feed to ranchers on the Blue River and displaced ranchers throughout the area. There were no livestock lost.

## Plant Services Division (PSD)

The mission of the Plant Services Division is to safeguard agriculture, food and the environment from the risks associated with the entry, establishment and spread of plant pests, diseases and noxious weeds thereby promoting agricultural sustainability, market access and competitiveness.

### 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 2011 there have only been ten interceptions of the pest, limited to a portion of Yuma County, the last of which, was in June of 2010.

#### *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.

## *Pest Exclusion Safety Nets*

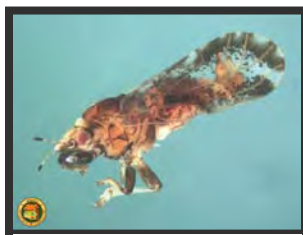
The Pest Exclusion and Management Program has moved to incorporate new technologies, advanced inspector training and updated quarantine requirements. Intensive pest-trapping methods are used to meet the challenges of rapid urban development, increased trade and expanded export opportunities for Arizona's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



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.

- **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 Weevil** – The red palm weevil is a major plant pest of palm trees and was discovered for the first time in the U.S. in 2011 at a residence in California. The red palm weevil can have severe effects to production date palms and other ornamental and native palms found in Arizona.



One of a few color variations of an Adult Red Palm Weevil



White larvae (grubs) with cocoon made from palm fibers.

- **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  
- IISDA



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) — are devastating pests of citrus, dates, and other types of fruit that impact quality and yield. Presence in Arizona would limit export potential of citrus and date 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. 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 2011, inspection staff intercepted 9,931 pests of concern within the state's interior through various inspections; 2,087 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 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. This is a highly important component of our agricultural safeguarding system. Realistic trap densities are one aspect of this system that may fluctuate within certain geographical area based on certain risk factors. The main risk factors are:

- Availability of suitable hosts
- Climate conducive to the pest
- Evidence of potential pest pathways within a community or local area, such as:
  - Densely populated areas
  - Frequent travel to infested areas
  - Availability and demand for exotic fruits, vegetables and other plant material
  - Gardening groups and clubs specializing in rare plant propagation
  - Mail parcels from infested areas
  - Major ports of entry (land and air) and transportation routes
  - Wholesale marketing centers and street vendors
  - Historical trapping results

All of these risk factors must be taken in to consideration when determining trap densities. Arizona is a state with extreme uniqueness in climate, host distribution, and key potential pathways. As a result of this uniqueness, a distinctive risk level description and resulting rotational strategy is required to allow trappers to efficiently and effectively safeguard Arizona from exotic pests.

The following sections outline the details of the risk levels, minimum density requirements, and rotational strategies. These details are meant to be a guide for Operational Units to use in developing each area's

trapping plans. Within these guidelines, consideration should be taken by adjusting to the uniqueness of their area while maintaining a required level of accomplishment.

Statewide, an average of 11,825 traps were placed, serviced and monitored throughout FY 2011 for up to 14 targeted pest species. A majority of these traps are regularly serviced up to 3 times a month increasing their effectiveness for detecting a dangerous plant pest before a major infestation is discovered.

### *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 an average of 3,260 traps placed statewide and currently meets or exceeds the Federal trapping protocols.

In FY 2011, inspectors continued to use all internationally accepted lures and trapping arrays and techniques for a highly efficient detection strategy for all exotic fruit 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. 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.

## *Asian Citrus Psyllid/Citrus Greening*



Citrus in Arizona is a popular choice by many for the production of citrus fruit and nursery stock, and as an ornamental landscape in many areas of the state. Citrus is now being threatened by a pest called the Asian citrus psyllid and the disease it can carry, citrus greening or Huanglongbing. The Plant Services Division has trained inspectors that carry out a number of pest detection methods to detect the first sign of the pest or disease. The Division, and through a partnership with the USDA, has deployed over 10,000 insect traps statewide. This endeavor has been successful in allowing the Division to quickly respond and prevent further spread of ACP and greatly reducing the risk of introduction of citrus greening.

## *Khapra Beetle*



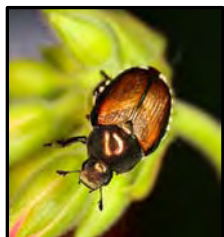
To secure the exportability of grain and stored dry products produced in Arizona, methods are in place to detect early infestations of the devastating Khapra beetle. The Khapra beetle is one of the world's most destructive stored-product pests. It is difficult to control once introduced into a region because it feeds on a variety of dried materials, is resistant to insecticides, and can go long periods without food. Infestations can result in up to 70 percent grain damage, making products inedible and unmarketable.

## *European Corn Borer*



The European corn borer is a damaging pest that can jeopardize the quality and exportability of corn grown in Arizona. The products that are produced for export can be surveyed for European corn borer to meet the entry requirements of other countries and/or states. Corn products that are imported into Arizona must meet the entry requirements defined in A.A.C. R3-4-228: European Corn Borer.

## Japanese Beetle



The Japanese beetle is an aggressive feeder and reproduces at a high rate. They can destroy turf grasses, ornamental plants, and many vegetable crops common in Arizona. High risk areas are monitored for the pest and imported host product must meet entry requirements found in the National Japanese Beetle Harmonization Plan.

## 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 2011, inspectors issued 1,627 single shipment certificates for shipments of agricultural commodities to other states. Nursery stock accounted for 47 certificates.

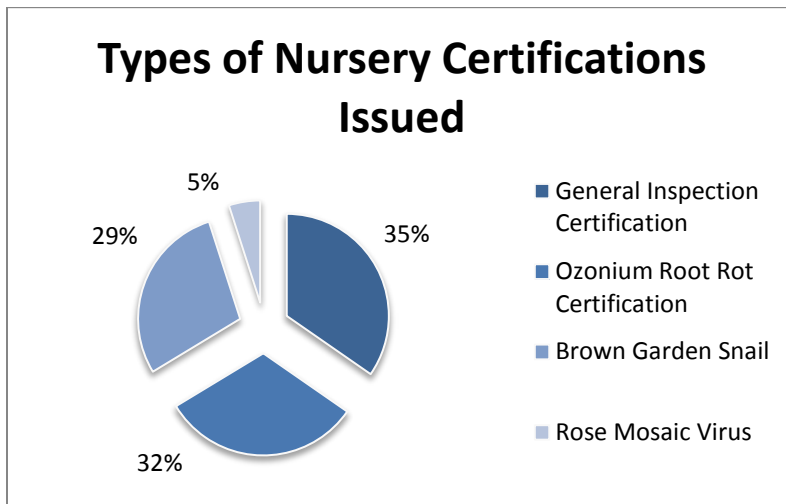
- **Voluntary nursery inspection certification program**



In safeguarding the market access of Arizona produced nursery stock, certification programs exist to certify a commodity to meet the requirements of other states. Arizona produced nursery stock most often is required to have a “General Nursery Stock Certification” (A.K.A. Arizona Certified) that attests to the general health and freedom of dangerous plant pests. Some states also require certification for specific pest threats (i.e. Ozonium root rot, Brown garden snail, Rose mosaic, etc.).

The Division is now the steward of a Clean Citrus Stock Program, under Director’s Administrative Order DAO 11-6, which allows citrus nursery stock providers to participate in a program that focuses on maintaining a pest free status from the Asian citrus psyllid. The program allows establishments inside an area under quarantine, within the state, for the Asian citrus psyllid to move their product to areas outside of the quarantine under strict safeguarding measures. Some of the key guidelines for citrus nursery stock are that material is produced in an approved screenhouse and follows a treatment and inspection protocol.

The Division processed 291 applications during calendar year 2010 from Arizona nurseries requesting certification to comply with the entry requirements of other states, and issued 285 individual certificates following inspection of the applicants’ properties.



### *Global 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 issued 2,087 Federal phytosanitary certificates for the international export of agricultural commodities.
- The Division received 491 applications for phytosanitary field inspection of seed crops for international export. 33,922 acres were inspected and found free of pests and diseases.

#### **Seed Crops Inspected**

Cotton.....	41%
Vegetable.....	55%
Grass.....	2%
Grain.....	2%

### *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.

## *Rules and Regulations*

Regulatory restrictions safeguard Arizona's agricultural commodities by providing guidelines by which regulated material can, or cannot, be move into and/or within the state. These restrictions come in the form of statute (Arizona Revised Statutes (A.R.S)) and rule (Arizona Administrative Code (A.A.C.)). Regulation is a key component that allows PSD to manage commodities that are high risk for transporting a serious plant pest or disease and secures the marketability domestically and internationally for Arizona agricultural commodities that that otherwise might not be possible.

## *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 in not quarantined, the department shall provide the grower with technical information on effective weed control activates 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 2012, 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.