Mission :

"To support and promote Arizona agriculture in a way that encourages farming, ranching and agribusiness, protects the well-being of people, plants, animals and the environment while safeguarding commerce, consumers and natural resources."

ARIZONA DEPARTMENT OF AGRICULTURE ANNUAL REPORT

FY 2016

DOUGLAS A. DUCEY
Governor

MARK W. KILLIAN
Director

Arizona Department of Agriculture

1688 W. Adams Street, Phoenix, Arizona 85007

September 30, 2016

Honorable Douglas A. Ducey
Governor, State of Arizona
1700 West Washington Street
Phoenix, AZ 85007

Dear Governor Ducey:

I am proud to present to you the Arizona Department of Agriculture's Annual Report for Fiscal Year 2016. We have brought the Department to a new level of customer service and agricultural growth during my first complete year as Director. The groundwork laid in FY 2016 sets a solid foundation for FY 2017 and beyond.

Our industry partners highlighted their needs through a series of stakeholder meetings that we hosted in May of this year. The results of those meetings yielded a new strategic plan and mission statement. Most notably was the decision we made to revise our 5 year IT plan; by doing so we will now be able to offer all customers the ability to apply and renew any license online by the end of the current fiscal year. We were able to do this without additional resources and funding. Additionally, our customers and staff assisted us in creating our new mission statement:

> "To support and promote Arizona agriculture in a way that encourages farming, ranching and agribusiness, protects the well-being of people, plants, animals and the environment while safeguarding commerce, consumers and natural resources."

Moving into FY 2017, we will continue to work closely with our partners to ensure we provide what they need. This December we are again co-hosting the Agribusiness Roundtable at which you spoke last year. The State cannot underestimate the importance of agriculture's full impact. When there is a good return in agriculture, the money flows through almost every sector of Arizona's economy amounting to 77,000 jobs and more than a $17 billion economic impact.

We continue to protect the food supply and its quality for the people of Arizona, the U.S. and the world. Meat, poultry, dairy and egg products are safe, animal feed (including pet food) meets safety and label requirements, and fruit, vegetables and plants brought into this state are not carrying harmful pests or diseases which affects everyone in Arizona.

Additionally, we have developed our Agency Scorecard which over 20 key metrics to assist us in making key decisions and staying laser-focused on our most important processes and goals. We continue to challenge ourselves daily to improve our processes through lean tools so we can provide Government at the Speed of Business.

Lastly, I am working with a cross-section of agriculture leaders to help us in developing a long-range five year plan for the Department. Not only are we providing industry with efficient and exceptional service, but it is important we continue a path of excellence through long-range planning.

Governor, I look forward to working with you on issues important to Arizona's agriculture community as we continue to strive for quality in everything we do.

Sincerely,

Mark W. Killian
Director

MK:lo

As the Arizona Department of Agriculture completes its 25th year as an agency, the Agency has a new mission, "To support and promote Arizona agriculture in a way that encourages farming, ranching and agribusiness, protects the well-being of people, plants, animals and the environment while safeguarding commerce, consumers and natural resources." The law passed in 1990 sought to bring together all facets of agriculture under one roof to use the fewest regulations possible and improve services to help producers raise the best crops and herds, educate the public about Arizona agriculture and increase the demand for our commodities.

Throughout FY 2016, Director Mark Killian embarked on a state-wide listening tour traveling all over the Grand Canyon state to elicit feedback and hear what individual farmers and ranchers need and want from the Department. In addition to the Director traveling across the state, the Agency held four meetings in Phoenix. About 100 people from various agriculture industries assisted the department in developing short-term and long-range strategic plans.

One priority, that many partners cited was the need to work together to educate policymakers and the public about the issues facing the agriculture community in our state. It is time for people to understand and respect the magnitude of Agriculture's impact on the Arizona economy – $17.1 billion and more than 77,000 jobs.

Another key topic highlighted during the listening tour and stakeholder meetings was the elimination of excess regulations and more training from the Department on how to meet rules that are needed. The Department has focused on customer compliance, but now the greater emphasis is working with clients to understand why certain regulations exist and how to comply. The Department is reviewing all regulations to make sure they are still needed. This ongoing process has already changed one rule in our Dairy and Egg Program.

The agribusiness community stretches far beyond what happens on the farms and in barns. To highlight the economic impact of agriculture in the state, the Department joined with the Arizona Agribusiness and Water Council to host the First Annual Arizona Agribusiness Roundtable. Governor Doug Ducey spoke to more than 200 people representing a broad spectrum of other businesses that rely on agriculture. A positive or negative financial change to farmers and ranchers will impact the bottom line for banks and equipment, transportation, fuel companies, and dozens of other types of businesses.

The vast diversity of Arizona's Agriculture provides stability for the overall industry. Individual commodities face financial challenges every year, but across the entire industry agriculture is a financial win for the state. Agriculture is also a culinary win for the state, and several divisions of the department work together to ensure the food supply is safe, the state maintains a pest-free designation for export, workers are protected and any pesticide used is applied properly.

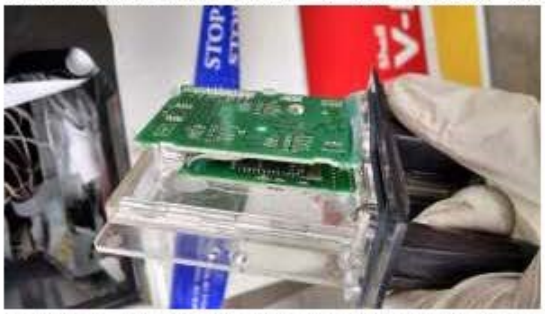
Arizona is the 3rd largest producing state for production of fresh market vegetables, and it is 10th in the country for producing organic vegetables. Arizona Agriculture produces more than 104 million cartons of fresh vegetables, including lettuce and cantaloupes which top the list. Arizona growers export tons of plants, seeds, nuts, vegetables and livestock feed to 70 countries around the world. The agriculture industry is growing in Arizona as more producers see the benefits of the weather and business climate.

ARIZONA PECAN INDUSTRY

4th largest pecan grower in U.S.
$43 million value
35% increase in 6 years
2010 - 4,100
2016 - 18,000

Arizona's livestock industry covers beef, lamb, mutton, egg and dairy production. In 2015 ranchers in Arizona raised enough beef to feed more than 8 million people. Dairies and dairy farmers produce the state's number one commodity with almost 200,000 cows producing more than 750 million dollars of milk. Department staff work with industry to make sure food-borne bacteria and viruses are not present from the beginning of the process until it reaches a grocery store or restaurant. Staff also check for and protect against animal diseases that could threaten people or the industry.

Protecting the food supply and ensuring every Arizonan is eating disease-free commodities is just part of the Department's consumer protection. Staff check the quality and quantity of fuel at Arizona gas stations and the scales and prices at the retail and wholesale level. After a substantial increase in electronic theft devices, known as "skimmers," were discovered during inspections of gas pumps, the Department facilitated a coalition of retailers, law enforcement and government agencies. The coalition worked with the legislature to pass a law signed by Governor Ducey that increases penalties for thieves. Employees make sure the people spraying homes and fields to prevent pests are educated and licensed, and that products sold in stores match what the label says. Investigators follow up calls from the public about animal welfare.



Efficiencies are essential at the Department. About 240 people oversee almost 50,000 licensed professionals, conduct more than 12,500 inspections, test samples from almost 5,000 samples from dairies, meat, seed, fertilizer and feed – including pet food. The Department's general fund budget of more than $9 million provides one third of the budget needed to protect the food supply. Federal grant dollars and industry fees fulfills the rest of the budget.

Each Division of the Department provides support to Arizona Agriculture. The following sections highlight accomplishments and tasks of each.

Table of Contents

Agricultural Consultation & Training (ACT)

The Agricultural Consultation and Training (ACT) 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. ACT serves Arizona's diverse agricultural community by promoting agriculture, conducting training and increasing voluntary compliance and awareness of regulatory requirements. ACT provides agricultural conservation education through the following compliance assistance and education programs:

- Pesticide Safety
- Air Quality

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

- Good Agricultural Practices/Good Handling Practices Food Safety Program
- 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

Pesticide Safety Compliance Assistance

The Environmental Protection Agency's Worker Protection Standard (WPS) is designed to reduce the risk of pesticide exposure to pesticide handlers and agricultural workers. 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. The ACT Pesticide Safety staff person assists 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.

Training

Among the more popular services provided by ACT staff are free pesticide safety training courses. 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.

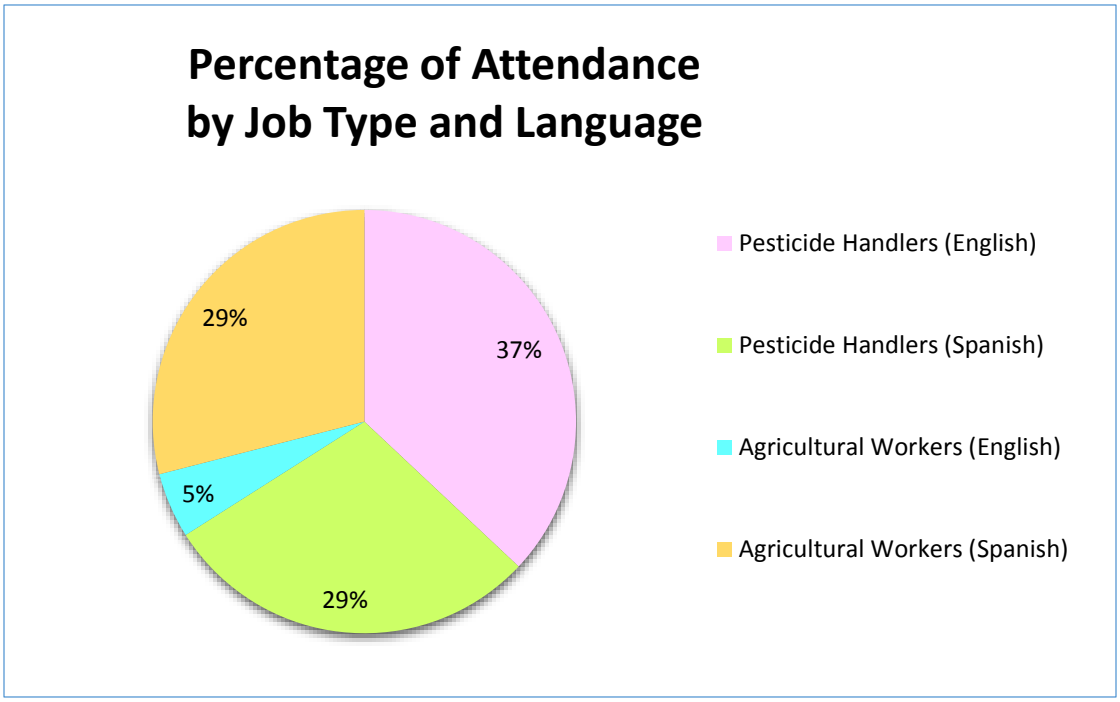
The training courses are provided in English and Spanish and open to anyone who would like to attend. The courses are promoted to safety trainers. Licensed and certified pesticide applicators may also attend to receive two hours of continuing education toward the renewal of their license.

During FY 2016, ACT staff presented pesticide safety training to 681 people who were employed by 78 agricultural operations, landscaping companies, tribal communities, golf courses and governmental agencies.

The two-hour pesticide handler course was provided to 450 people who work directly with pesticides. Of the handlers, 25 licensed applicators participated to receive an EPA Pesticide Training Verification card and Continuing Education hours toward the renewal of their licenses.

In addition to the pesticide handlers, 231 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 had been applied in the previous 30 days. The following chart shows the percentage of attendance in each type of training.

As is displayed in the following chart, 66% of the people who attended a pesticide safety training course were trained as pesticide handlers and the remaining 34% were trained as agricultural workers.



During this reporting cycle, ACT Pesticide Safety Program staff also presented two, 4-hour classes on pesticide safety and equipment calibration to 24 landscape professionals. The classes were presented at the Arizona Landscape Contractors' Association office in Scottsdale.

Train-the-Trainer Workshops

Each year staff in the Arizona Department of Agriculture's (ADA) Agricultural Consultation and Training Program works with industrial hygienists from ADA's Environmental Services Division to present pesticide safety train-the-trainer workshops.

The workshops, presented in English and Spanish, are designed to increase knowledge on human health and environmental concerns when working with pesticides and steps to reduce exposure to agrichemicals. Hands-on training techniques and group activities are used to demonstrate how to extend pesticide information to pesticide handlers and agricultural workers.

In fiscal year 2016, the team of instructors presented 19 workshops to 342 people in Marana, Maricopa, Yuma, Phoenix, Safford, Willcox and Sun City West, Arizona. In addition to attending the workshop, participants must demonstrate their ability to present pesticide safety information and pass a 50-question trainer exam before becoming a certified trainer. This year 311 people completed and passed all three elements of the trainer requirements. They each received Arizona Pesticide Safety Trainer Certificates, which are valid for three years.

Applicator Licensing Exam Events

ACT staff administers private and commercial applicator licensing exams during trade shows, conferences and to large groups working in remote areas.

During FY16 ACT staff was invited to provide pesticide applicator exam events for 90 people in six locations. The events were held in Canyon de Chelly (Navajo Nation), Flagstaff, Phoenix and Boulder City, Nevada.

The test takers who participated in the events in Canyon de Chelly, Flagstaff and Boulder City were state, federal and tribal governmental agency employees involved in invasive weed control programs. Most of the people who attended the Phoenix and Willcox events planned to use pesticides on golf courses and privately-owned farms, ranches and nurseries.

Thirty-seven people passed the National Pesticide Applicator's Core Exam. They received Private Applicator's Certifications, which allows them to purchase, use and supervise the use of restricted-use pesticides on their own private property. Of the 37, three people also passed the Ornamental and Turf Endorsement exam to earn a Private Applicator's certification for the golf course industry. Thirty state and tribal governmental agency employees earned Commercial Applicator's Certifications after passing both the National Core Exam and a use-specific category exams. The category exams include Forestry Pests, Aquatic Pests, Agricultural Plant and Fumigants for Burrowing Rodents and Grain Pests.

Teaching Tools, Informational Resources and Training Modules

ACT staff develops new and adapts existing teaching tools, informational resources and training modules. These materials are used during safety events and are distributed to agricultural employers, employees, health care professionals and outreach educators. In early November 2015, U.S. Environmental Protection Agency announced changes to the federal Worker Protection Standard (WPS). Implementation and enforcement of the new standard will begin on January 2, 2017. ACT Pesticide Program staff felt it was imperative to immediately inform Arizona's agricultural community about these changes and how they compare to current federal and state pesticide regulations.

In fall 2015, ACT pesticide program staff developed a "Worker Protection Standard New Regulation Comparison Table", which highlights changes to the following areas:

- Pesticide safety training
- New definitions and terminology
- Minimum age requirements
- Decontamination supplies for agricultural employees
- Hazard communication and central posting requirements
- Emergency medical assistance
- Notification of pesticide treated areas
- Entry restrictions during applications
- Respirators and chemical resistant material
- Personal Protective Equipment (PPE) exceptions
- PPE requirements for crop advisors and their employees

Air Quality Compliance Assistance

Regulated Agricultural Best Management Practices

The Regulated Agricultural Best Management Practices (RABMP) program has completed its thirteenth year of providing air quality compliance assistance to Arizona's agricultural community through a cooperative agreement with the Arizona Department of Environmental Quality (ADEQ). 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 in Maricopa, Yuma and Pinal Counties with the necessary resources to achieve compliance with applicable air quality standards. This program is expected to grow due to an increase in outreach for growers in the new West Pinal County Nonattainment Area.

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

- 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
- 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
- State and County Farm Bureau

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, nursery owners and producers in animal agriculture 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 have been adopted into state regulation.

Examples of BMPs include:

- Track-out control system – to remove mud from farm equipment tires before they enter a paved public road.
- Planting and tillage - timing activities to coincide with precipitation or the application of water.
- Wind barriers – fences, structures or vegetative barriers perpendicular to the prevailing wind direction.
- Misting systems in animal holding pens.
- Speed limits on unpaved farm roads (20 mph or less).
- Engine speed governors on feed trucks (15 mph or less).
- Reducing tillage operations by implementing conservation tillage.

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** for site specific assessments and recommendations. For fiscal year 2016 there were 138 visits made to producers to promote the program.
- **Agricultural BMP training for farm workers in English and Spanish**. In fiscal year 2016 there were 24 trainings, presentations and promotions of the program to agricultural workers and representatives. Outreach and training reached 2,658 participants.
- **High wind advisory email alerts.** During fiscal year 2016, sixteen forecasts were sent to 362 producers in Maricopa, Yuma and Pinal Counties.
- **"Air Quality & Agriculture – Air Quality in Action", a quarterly newsletter**. In fiscal year 2016, 1,198 copies of the newsletter were sent to 337 stakeholders in Maricopa, Yuma and Pinal Counties.
- **Articles and ads in industry periodicals**. In fiscal year 2016, nine articles and ads were published with a readership of 13,135 people.
- **Cooperation with other agencies** such as the Arizona Department of Environmental Quality (ADEQ) and county farm bureaus to address compliance issues needing correction. These include public complaints and violations. Five issues were corrected during fiscal year 2016.

Due to the Environmental Protection Agency (EPA) concurrence with the ADEQ's natural windblown dust event demonstrations, Maricopa County has been declared in compliance with the Clean Air Act for PM10. In the process of creating a maintenance plan, the BMP definitions were re-written in 2015 to meet EPA's "specific" and "enforceable" recommendations. Because of these changes, the RABMP Coordinator has updated the outreach materials. New guides were completed in the fall of 2015 for growers in Maricopa County as well as Pinal County, animal agriculture and irrigation districts. Distribution of these guides began in October.

The Technical Workgroup to the Governor's Agricultural Best Management Practices Committee met throughout the year to finish work on the new Ag BMP Program for Pinal County. The new Pinal County program received final approval from the Governor's Agricultural Best Management Practices Committee and became effective on January 1, 2016. The new program consists of BMPs in five different categories as well as BMPs to address windblown dust. Pinal County producers will also be asked to submit a survey every three years detailing the BMPs implemented. This will help ADEQ assess the program's effectiveness. Outreach training sessions for Pinal County were held in October and November at various locations in Pinal County. The 134 attendees received the guides and information on why, when and how to implement the Ag BMP program. For growers who couldn't attend a training session, the irrigation districts were able to distribute the guides.

In 2005 the Yuma Ag BMP program was implemented to address the PM10 problem in Yuma County. Outreach began in fiscal year 2010 to promote agriculture's proactive approach to addressing the PM10 problem in Yuma County. In fiscal year 2016 outreach included meeting producers, attending industry functions and reestablishing stakeholder meetings.

Good Handling Practices/Good Agriculture Practices (GHP/GAP)

The Agricultural Consultation and Training (ACT), through a United States Department of Agriculture-Agricultural Marketing Service (USDA-AMS) Specialty Crop Block Grant Program grant, entered into a cooperative agreement with The University of Arizona to develop and make available a course for food safety education. GHP/GAP is a voluntary, on-site farm verification program which has been developed for growers, harvesters, processors, warehouses, transportation lines and gardeners of specialty crops (fresh fruit, vegetables, and tree nuts). This training is in preparation for a USDA food safety audit and certification. Certification allows for produce sales to restaurants, farmers markets and other wholesalers with the assurance of established food safety protocols. Good Handling Practices (GHP) refers to post-harvest operations, while Good Agriculture Practices (GAP) refers to on-farm operations and systems, ensuring these crops are produced, packed, handled and stored in the safest manner possible to minimize risks of microbial food safety hazards.

Dr. Kurt Nolte, University of Arizona Cooperative Extension, developed training sessions which are presented around the state. Dr. Nolte and ACT's Food Safety Projects Coordinator collaborate and co-present the workshops to a diverse group of individuals involved with specialty crops in Arizona.

There is no cost to attend the workshop or for training materials which include monitoring logs and tracking forms. The Food Safety Programs Coordinator follows up with workshop attendees, offering one-on-one consultations to customize their food safety plans while reviewing their operation. These are also free of charge. Further incentivizing food safety, ADA will offset the cost of a (successful) audit with a cost share grant of up to 75% while funds remain available from USDA-AMS.

Dr. Nolte and the ADA's Food Safety Projects Coordinator were invited by the Utah State University's Cooperative Extension Office to present Arizona's GHP/GAP training workshop in Salt Lake City, Utah, in March, 2016, with more than 50 growers attending.

In 2016 ACT's GHP/GAP Program trained and/or assisted 181 individuals representing 127 AZ specialty crop operations regarding GHP/GAP food safety protocols. Through outreach such as Farm Bureau blogs, onsite visits, phone and email assistance and a radio interview, more than 3,300 individuals were informed about food safety practices. During this period three growers that had assistance from ADA's Food Safety Projects Coordinator successfully passed the USDA GHP/GAP Audit.

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 sixth and final grant cycle was completed in fiscal year 2016.

Several state and federal agencies worked together on a large scale geographical conservation project that utilized additional unspent grant funds from all previous grant cycles and leveraged funds from other agencies.

During fiscal year 2016, the LCCGP Coordinators worked to monitor completed projects from the previous grant cycles. The following types of projects were 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 Natural Resources Conservation Service Environmental Quality Incentives Program (EQIP) grant which typically requires 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 Coordinators continue to administer the existing grant contracts from all previous grant cycles. Throughout the duration of the grant project, the LCCGP Coordinators provide administrative support and information, answer questions and concerns and assist the grantees with reimbursement and funding advance requests. At the close of FY16, 56 of the 56 grantees from the fiscal year 2005 cycle, 69 of the 70 grantees from the fiscal year 2007 cycle, 61 of the 63 grantees from the fiscal year 2009 cycle, 41 of the 43 grantees from the fiscal year 2011 cycle, 13 of the 13 grantees from the fiscal year 2013 cycle and 1 of 16 grantees from the fiscal year 2016 cycle had completed their proposed grant projects. Throughout fiscal year 2016, more than $400,000 was disbursed to grantees to work on their contracted projects.

LCCGP Coordinators 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.

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. The Agricultural Act of 2014 continues funding for the program through 2018. The 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 2016, Arizona's State Plan was approved by the U.S. Department of Agriculture's Agricultural Marketing Service (AMS), and a cooperative agreement, which provided $1,215,126.59 in grant funds to the ADA, was executed on September 29, 2015. The Specialty Crop Program Coordinators worked with sub-grantees to execute grant award agreements, and provide guidance and assistance with quarterly reports and quarterly reimbursements.

On March 9, 2016, AMS announced the availability of $62.6 million in federal fiscal year 2016 funding. The funding is authorized by the Agricultural Act of 2014 (Farm Bill). Each state department of agriculture is eligible to receive a base grant of approximately $208,773. In addition, AMS allocated the remainder of the grant funds based on the proportion of the value and acreage of **specialty** crop production in the state. The 2016 base grant amount plus the AMS assigned value and acreage of specialty crop production for Arizona is $916,705.61. The Specialty Crop Program Coordinator submitted the Arizona State Plan to AMS on July 1, 2016.

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 approximately 2.7 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 2016 Financial Status - Arizona Citrus Research Council

Revenue	$41,141.06
Expenses	$43,924.72

Legislation passed in the 2012 legislative session created the Arizona Citrus Trust Fund which holds the Council's revenue in trust.

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 produced approximately 26 million cartons of iceberg lettuce in FY 2016. 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 2016, the Council continued to support research projects by granting nearly $90,000 to the University of Arizona. Some examples of research grant projects include area-wide monitoring for lettuce insects, biocontrol strategies for sustained management of fusarium wilt, evaluation of the effect of herbicides and weeds on soil applied insecticides and insect management in desert head lettuce.

Fiscal Year 2016 Financial Status - Arizona Iceberg Lettuce Research Council

Revenue	$104,328.60
Expenses	$ 97,448.95

Legislation passed in the 2012 legislative session created the Arizona Iceberg Lettuce Trust Fund which holds the Council's revenue in trust.

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 focused on chemical control of lodging, wheat and barley growth stage and water use calculator, evaluation of Palisade as a plant growth regulator in durum, small grain variety testing and the contribution of grain production to Arizona's economy. More than $70,000 was granted for research projects during fiscal year 2016.

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

Fiscal Year 2016 Financial Status - Arizona Grain Research and Promotion Council

Revenue	$215,385.97
Expenses	$130,782.03

Legislation passed in the 2012 legislative session created the Arizona Grain Research Trust Fund which holds the Council's revenue in trust.

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.

Animal Health and Welfare Program

Priorities and Oversight

The first priority of the Animal Services Division's (ASD) Animal Health and Welfare Program (AHWP) is the prevention of certain diseases of livestock, poultry and commercial fish; and if established, their subsequent eradication. Relatedly, AHWP protects the public from diseases which are transmissible from livestock to people. Field staff in AHWP enforce all ownership and dominion laws as well as specific equine neglect and livestock cruelty statutes. Additionally, through the State Emergency Response and Recovery Plan (SERRP), AHWP is involved in a myriad of human and animal welfare contingencies. Lastly, the staff of the Meat and Poultry Inspection Program is responsible for the oversight of livestock and poultry slaughtering as well as processing.

Animal Health Programs

There were a total of 27 Administrate Orders issued this fiscal year for animal health issues. Of this amount, 45% were for Tuberculosis (TB) suspects, 25% were for illegal entry of livestock, 15% for Vesicular Stomatitis Virus investigations (VSV) and the remaining 15% were for equine Foreign Animal Diseases (FAD) and equine neurologic suspects.

We managed three TB traces at dairies in our state. During this process, we performed whole herd TB testing on two dairies and removed any suspects. No positive samples were detected at slaughter. The investigation into the third dairy was from a steer raised in California. The case was closed by the United States Department of Agriculture (USDA) as it appears the incorrect animal was identified as a TB suspect at the slaughter facility and traceability of the correct steer was lost.

We did identify a FAD in an equine training facility and it was limited to the facility and the horses were under quarantine with treatment facilitated with cooperation from USDA.

Ongoing state / federal / industry programs for the control and elimination of:

- Brucellosis
- Tuberculosis
- Pseudorabies
- Equine Infectious Anemia
- Scrapie

Ongoing state / federal / industry programs for the benefit of public health:

- Rabies control
- West Nile Virus and other equine encephalomyelitides (zoonoses)
- National Poultry Improvement Plan (control of multiple diseases)
- Animal Disease Traceability
- Multiple obligations under the Emergency Support Functions of SERRP

USDA Cooperative Agreements

Traditionally various animal health surveillance programs have been funded via cooperative agreement grants with the USDA / Animal and Plant Health Inspection Service (APHIS) / Veterinary Service (VS). These have primarily included avian health, cattle health, equine health, swine health, scrapie and zoonotic concerns.

April 1, 2016 began the new reporting year for USDA / AHPIS / VS. Their agreements fall into one of two categories: Animal Disease Traceability (ADT) or Umbrella (general program disease surveillance).

Animal Disease Traceability System

The Animal Disease Traceability (ADT) cooperative agreement continues goals that have been in place for several years – specifically improving trace back of animals after a given disease has been identified in livestock. The goal is to be able to trace back to origin any disease within 48 hours of its recognition. This is a challenging goal, and due to our current data management system and staffing levels, it will be difficult to obtain. New and better technology would help by allowing digital searches of Certificates of Veterinary Inspection (CVI) and vaccination and testing documents with current staff. Testing of the system is done every quarter as part of the cooperative agreement.

Many opportunities exist to educate producers though continued dialogue. We also have the opportunity to obtain more premise identifications. Better identification of populations at risk improves the quality of the response. Better information in regards to location of populations at risk improves the speed and efficiency of the response. Both strategic aims are enhanced via the ADT plan. This ability to quickly locate and decrease the spread of food animal diseases will give the Arizona consumer greater confidence in our products.

Umbrella Grant: Foreign Animal Disease Surveillance Program

Early recognition of an animal disease outbreak is essential to reducing the impact of a devastating disease on the industry in Arizona. This cooperative agreement has four parts which include general surveillance, diagnostic testing, outreach and education, along with preparedness and response. Protecting the health of food producing livestock and poultry will result in an ongoing source of wholesome food, reduce the likelihood of animal diseases causing human health problems and preserve the economic viability of Arizona agriculture as a whole.

Arizona Livestock Incident Response Team investigations involving livestock were conducted during this reporting period in conjunction with the Arizona Veterinary Diagnostic Laboratory. None of these were found to be a FAD. The State Veterinarian's Office has responded to some FAD investigations with the outbreak of VSV in our equine industry. This was extremely important when cattle were involved as VSV may mimic many devastating FADs. To this date, all have tested negative for FADs. Our State Veterinarian has attended the Foreign Animal Disease Diagnostician (FADD) course at Plum Island, NY. Having a FADD in the department allows for a more rapid response to investigations and less dependence on USDA / APHIS / VS during the initial investigation.

Arizona's ASD has been very successful in the eradication of several federal program diseases and have achieved a "Free" status with both brucellosis and tuberculosis. Even though we currently have a free status, we have followed up with a number of suspect cases from cattle being tested for interstate movement and have not found any positive animals through diagnostic testing.

Arizona's voluntary National Poultry Improvement Plan (NPIP) was recently established for hobbyist and exhibition poultry and game bird breeding flocks and products. The State Veterinarian's Office has worked in cooperation with the division's Egg Program to hire an NPIP Coordinator who works with local breeders and producers to do testing and inspections while educating them on biosecurity. NPIP is about disease monitoring, sanitation and record keeping. Though the newly established NPIP program is voluntary, any person moving hatching eggs, chicks or older birds across state lines may be required to become NPIP-certified in order to meet the other state's entry requirements and the new Federal Interstate Movement Law requirements. This program allows us a better opportunity for surveillance along with the educational aspect to the public. We already have an NPIP program for commercial producers. We have also been

monitoring for Avian Influenza (AI) throughout the state and to date have not had any birds come up positive. One of the goals of the NPIP program is to increase the surveillance.

One of the program's other goals is to monitor diseases in animals that are transmissible to humans (zoonotic). We have worked with the Arizona Department of Health Services (ADHS) to make sure the public is educated and protected during outbreaks of Plague, Leptospirosis and rabies. We participate in monthly conference calls which keep an exchange of information between departments. We have also been involved in joint educational outreach events with ADHS for public education and rabies vaccination clinics in southern Arizona.

Annual Licenses

Aquaculture

The Aquaculture Program regulates commercial operations that grow, transport and process fish and shrimp. These are the numbers of issued licenses: 20 transporters, 7 processors of fish and shrimp for human consumption, 26 growing facilities, 4 research and educational facilities and 5 operations that charge a fee for fishing.

Feedlots

Twenty feedlot licenses were issued. This is only required for feedlots with 500 or more head of beef cattle.

Inspection Data Tracking

The Livestock Inspection Program tracks field activities through the State Forester's WildCAD dispatch system. Since 2002, a number of activities have been closely monitored and include such items as the number of inspections, the number of investigations for livestock welfare complaints, stray livestock, livestock theft and dogs chasing/killing livestock. This data is summarized in the table titled "FY 2016 Calls for Service from the Public" at the end of the ASD section.

Surveillance Statistics

Currently, almost 4,500 producers are approved to use the Self-Inspection Program. Livestock owners understand the value of documenting animal movement and have accepted responsibility for intrastate documentation through Self-Inspection certificates. Livestock Officers, Inspectors and Deputies document non-Self-Inspection activities such as the sale of range cattle and custom slaughter livestock. Exhibitions, fairs and shows have also been supportive of the "seasonal exhibition pass" implemented by statute and 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.

Arizona Livestock Incident Response Team Program

The Arizona Livestock Incident Response Team (ALIRT) program was implemented through legislative authorization in FY 2005. Annual funding 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. Participating veterinarians and state staff received training in March 2015. 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's Department of Veterinary Science Veterinary Diagnostic Laboratory and Cooperative Extension. USDA Wildlife Service and Veterinary Service actively participate in a program designed to facilitate the potential diagnosis of unexplained livestock losses. Once a problem has been discovered, various levels of response may be initiated. 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, actions are necessary.

The cost of case work-up is covered by ALIRT program funding and includes expenses for the ALIRT private veterinarian and 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 role 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 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. The program also begins if 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 at 602-542-4293 or the University of Arizona Veterinary Diagnostic Laboratory at 520-621-2356.

Meat and Poultry Inspection Program

The Meat and Poultry Inspection (MPI) Program is a federal-state cooperative program, funded 50% from the state General Fund and 50% by USDA / Food Safety Inspection Service (FSIS). The program oversees slaughter and processing of amenable meat animals and poultry which are 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.

State MPI personnel monitor general plant and equipment sanitation, processing sanitation, good manufacturing practices during production, ante mortem and post mortem inspection at slaughter, humane handling, Hazard Analysis Critical Control Point (HACCP) implementation, multi-ingredient formulation, the use of approved labeling, net weights and perform laboratory sampling programs as requested. They also verify compliance with state and federal regulations prior to allowing the inspected and passed triangle shaped "mark of inspection" to be applied to applicable products.

ADA inspectors receive training including HACCP inspection procedures, Sanitation Standard Operating Procedures and animal ante mortem and post mortem inspection procedures for disease.

Each day one of the state's 24 state inspected plants operates, an MPI employee makes at least one unannounced visit to review production. If discrepancies are found, they are documented and discussed

with plant management to determine what corrective actions will be taken to ensure that no unwholesome or mislabeled product leaves the plant. In slaughter plants an MPI Inspector observes each animal presented for slaughter both alive and at various stages during the carcass dressing procedure looking for any pathology that may be present.

Unfit and/or unwholesome carcasses and parts are removed from the human food chain and de-characterized for inedible purposes. Humane handling is strictly enforced to ensure no animal is mistreated or improperly stunned at slaughter.

Sanitation is observed and verified each day a plant operates by a pre-operational check of facility and all equipment prior to the start of operations and/or operational sanitation checks to verify sanitation is maintained during production.

HACCP verification is performed by reviewing the HACCP plan and all supporting documentation. Direct observation or review of records is performed at all Critical Control Points. Corrective actions are taken when a deviation occurs. Verification and reassessment is performed as required by regulation.

Labels are reviewed to show that they reflect the product is actually as the label states and that the label meets all labeling requirements per regulation, including approval and allergen declaration. Formulation is observed to verify the product is being made to meet product standards and as approved. Net weights are verified on certified scales weighing random lots of finished product to ensure compliance.

Product samples are taken as requested by the Program Manager in selected establishments and delivered to the State Agricultural Laboratory to be analyzed for the pathogen of concern. In the event of non-compliance, establishments are notified by written non-compliance reports and regulatory control actions are taken as needed to ensure affected product does not reach the consumer.

Inspectors also periodically visit the other 45 processors known as "custom exempt," which are firms that process meats, game and poultry for personal consumption of the owner. These types of processors may not sell meat to the general public without obtaining an official slaughter and processing license.

More than 650 food safety samples per year are submitted to the State Agricultural Laboratory to be analyzed for E-coli 0157:H7, non-0157 Shiga Toxin E-coli (STEC), Salmonella, Listeria Monocytogenes or violative antibiotic residue. Additionally, antibiotic residue samples requested by USDA / FSIS and Tuberculosis samples from suspect animals at slaughter were also taken. All of this information is entered each day by the inspectors into a new computer database system mandated by FSIS called the Public Health Information System (PHIS). This system tracks all aspects of the meat inspection program.

Almost 6,500 on-site food safety inspections were performed at official establishments and custom exempt facilities this past year. No food-borne illnesses were reported from any Arizona official establishment in Fiscal Year 2016.

Meat and Poultry Compliance Program

Compliance is an integral part of the MPI Program. Arizona Revised Statutes provide the authority and responsibility to protect consumers by assuring meat and poultry products are wholesome, not adulterated and properly labeled. In-commerce surveillance and reviews are conducted at distribution centers, public warehouses, retail stores, restaurants, schools, prisons and poultry exempt facilities. Surveillance reviews are conducted to ensure industry compliance and consumer safety. These surveillance reviews consist of product and facility assessments, food safety, sanitation, hazard control and labeling assessments.

Compliance also investigates food safety, misbranding and other violations of law to protect public health and to support criminal, civil and administrative action. An investigation includes: planning, decision-

making, evidence collection, identification, custody, interviews, photographic evidence, reports of investigation and investigative liaison with attorneys. The program is authorized to identify, detain and control adulterated, misbranded, illegally imported and other illegal or unsafe meat and poultry products so they do not reach consumers.

If requested Compliance will assist with food safety related illness outbreaks and epidemiological investigations. This consists of conducting product trace back and trace forward. The program coordinates with USDA and various statewide health departments in conducting surveillance reviews and investigations of retail stores and restaurants to ensure that meat and poultry products are wholesome and properly labelled. Compliance will also conduct investigations of illegal slaughter and/or processing operations statewide. Compliance has a database of over 100 licensees which include: warehouses, distributors, jobbers, dead stock haulers, brokers and meat storage.

Dairy & Dairy Products Inspection Program

Dairy inspection staff regulate all aspects of the dairy industry, from the dairy farm until products leave the processing plant. Beginning at the farm, inspectors review plans submitted for construction of new farms and the remodeling of existing farms. Farm inspections are conducted to check for compliance in sanitation, milking procedure, equipment condition and usage/labeling of drugs for animals, along with other requirements. Water and milk cooling systems are reviewed and sampled for compliance with public health standards.

Milk produced is sampled and tested for compliance with regulatory requirements. Bulk milk tankers, used to collect and transport milk to processors, and milk tanker drivers are inspected and licensed by the dairy inspectors.

Dairy inspectors regulate dairy processing plants ranging from small cheese makers to plants processing millions of pounds of milk per day. At plant inspections, inspectors review plant processing records, and facilities are inspected for compliance with sanitation and maintenance requirements. Pasteurization systems are tested quarterly and the controls are sealed by the inspector. If regulatory seals are broken for maintenance or repairs, the plant must immediately notify the Dairy Program and the equipment must be retested and sealed by the inspector or licensed industry sealer. Arizona milk processors use a variety of approved pasteurization processes. These processes include the relatively simple batch pasteurizer and proceed in complexity to systems called Ultra Pasteurization, which greatly extend the shelf life of dairy products. In FY 2016, the three Dairy inspectors conducted 882 sample visits, 178 processing plant inspections, 216 tanker driver evaluations, 198 pasteurizer tests (with an additional 123 regulatory seal replacement visits), 278 dairy farm inspections and 80 milk tanker inspections. Inspectors drove more than 72,000 miles in accomplishing their assignments throughout the state.

Inspectors also check packaging/bottling facilities and processes at dairy plants. Other facilities manufacture containers and closures for dairy products. These facilities are also inspected and their products are sampled and tested.

Finished milk and milk products are collected by Dairy inspectors and submitted to the State Agricultural Laboratory for testing. In FY 2016, there were 3,384 dairy samples submitted to the lab, and 8,482 separate analyses were conducted (coliform, standard plate count, inhibitor, phosphatase, somatic cell count and beta lactam).

Universal Sampling System

Regulations require regular testing of milk produced by Grade A dairy farms. In Arizona, dairy farms are spread out over a large geographic area. Under the "Universal Sampling System," milk hauler/samplers are licensed by ADA after passing an exam. These hauler/samplers are also evaluated in the field by Dairy inspectors to assure that their procedures are correct. The samples collected by licensed hauler/samplers may be randomly tested by the State and the results used for official purposes. This system reduces the personnel and the driving time that would be required if the State had to collect the samples from each individual farm.

If milk is determined to be adulterated, it must be either removed from the human food system or destroyed. In FY 2016 three tankers of milk were disposed of due to positive antibiotic tests for a total of 142,120 pounds. Four tanker loads, tested by industry, were found to be in violation of the aflatoxin limit for milk (total of 185,560 pounds).

Raw Milk Consumption

The majority of milk and milk products produced in Arizona are pasteurized. This means that the milk was subjected to a process of heating the milk and holding it a specific temperature for a specified time period (161 degrees for 15 seconds, for example) in approved equipment. This process is known to kill harmful microorganisms which may be present.

A small amount of milk sold in Arizona is packaged and sold as raw milk for consumption. This milk is not subjected to the pasteurization process. Although this milk is required to meet the same standards as pasteurized milk, it can potentially contain pathogenic organisms. For this reason, raw milk for consumption is required to have a warning statement on the label so that consumers can be informed of the potential risk. It is illegal, in Arizona, to sell raw milk for consumption without a license. During FY 2016 there were three licensed facilities that sell raw milk for consumption.

Interstate Shipment of Milk

Arizona participates in the National Conference on Interstate Milk Shippers (NCIMS). This program creates uniform standards for evaluation of Grade A milk and milk products. This allows for milk to be transported between States and accepted via reciprocity. The Food and Drug Administration (FDA) certifies State personnel who conduct audits, called ratings, on producers and processors that wish to be listed as Interstate Milk Shippers (IMS). The FDA periodically conducts check ratings to assure uniformity in the system.

The NCIMS is also responsible for changes and updates to the Pasteurized Milk Ordinance (PMO), which is the main document used to regulate Grade A milk and milk products. The NCIMS convenes every two years to consider and vote on proposed changes. Arizona is a voting delegate at these conferences. Conferences are held in odd-numbered years and the 2017 conference will be held in Grand Rapids, MI.

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 were produced in accordance to state statutes and are held at temperatures of 45° Fahrenheit for eggs and 0° Fahrenheit for frozen egg products. Inspectors also verify proper packaging, sanitary handling, dating and weighing of eggs at production facilities, warehouses or retailers for product originating out-of-state. Inspectors also check Nest Run Egg producers for proper handling, labeling and registration with the Department. Nest Run Egg producers are limited to selling a total of 750 dozen unwashed ungraded eggs annually.

In FY 2016, the Departments conducted 1,541 inspections visits at producers, wholesalers and retailers. During those inspections, 469,034 individual eggs were graded and a total of 23,986 dozen eggs were retained for noncompliance with state law.

Eggs processed or sold in Arizona are marked with mandatory expiration dates (sell by dates) and have one of the shorter code dating requirement at 24 days from packing. This helps ensure eggs continue to meet the marked grade after they are purchased by consumers.

USDA Inspection and Grading Program

The Department also maintains cooperative programs with the USDA to provide "grade labeling" services to the 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. 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 inspectors check for proper handling in transit, including temperature checks. In FY 2016 we conducted 14 school lunch inspections.

Graders perform both temporary and resident (in-house) grading services for the egg industry in Arizona. Ten full-time state employees and one supervisor are stationed at four packing plants and provide inspection / grading services 365 days a year, 7 days a week. In FY 2016 the Department provided 19,631 hours of resident grading service under this USDA program. Resident graders continually monitor plant sanitation, processing temperatures, handling and holding cooler temperatures. This USDA program is voluntary and paid by the producer requesting the service. Eggs packed under USDA program supervision are eligible to be marked with USDA shield grade marks or other USDA identification. These USDA grade marks are valuable because many entities require it for sale, such as grocers, commercial foodservice, foreign countries and the U.S. military.

Emergency Preparedness and Response

State Emergency Response and Recovery Plan

The Department is the primary agency responsible for Emergency Response Function #11 of the State Emergency Response and Recovery Plan (SERRP). In this role, the Department coordinates the emergency response activities of state, federal and private resources in response to and recovery from natural and human-caused disasters as well as plant, pest and FAD incidents that can negatively impact agricultural production. The Governor ordered the SERRP to be updated in 2016 to improve is usability so the Department revised the ESF #11 Annex.

Meetings were held between the Departments of Agriculture and Health Services to discuss and develop a plan to address field worker health and safety during a response to a Highly-Pathogenic Avian Influenza

outbreak in Arizona. This plan specifically addresses the Personal Protective Equipment to be worn during response activities, public messages and recommended monitoring of workers for clinical signs after exposure to diseased poultry.

Palo Verde Nuclear Generating Station

The Department is an integral part of the state and county response to any emergencies related to the Palo Verde Nuclear Generating Station (PVNGS) located west of Phoenix. With three reactors, this is the largest nuclear power plant in the U.S. with the capacity to serve millions of homes. Should an incident at PVNGS result in the release of radioactive material, the Director is statutorily authorized to "abate, suppress, control, regulate, seize, quarantine or destroy any agricultural product or foodstuff that is adulterated or contaminated as the result of an accident at a commercial nuclear generating station."

In 2016, the ingestion pathway exercise was conducted to assess the Department's readiness to protect the food supply in Arizona from radioactive contamination. Areas needing improvement were identified, and the Department's performance will be federally evaluated during the 2017 exercises. A passing grade from cooperating agencies is required for PVNGS to maintain an operating license by the Nuclear Regulatory Commission.

Emergency Response

In June 2015, we received a request from the Pinal County Sheriff's Office to assist in the evacuation of livestock from a wildfire near the town of Kearny, AZ. Within a few hours, we had deployed five Livestock Officers, three Livestock Inspectors, one Assistant State Veterinarian, eight trucks, six livestock trailers, one mobile veterinary unit and one incident response trailer. Staff provided safe relocation to several animals including the prize Arabian stallion of an Arizona State Senator.

FY 2016 Calls for Service from the Public

Inspections	
Ownership	4,264
Butcher	1,425
Highway and Road Kill	52
Total	**5,741**
Welfare	
Equine	672
Cattle	191
Goats	58
Sheep	33
Swine	16
Total	**970**
Out of Place	
Loose and Stray	731
Theft	39
Total	**770**
Other	
Dogs Chasing/Killing Livestock	**14**

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 104.3 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 and honeydews.

The top ten commodities, which account for 87.5% of the state's total produce production, based on carton count for fiscal year 2016 are as follows:

Iceberg lettuce	25,374,021	Spring Mix	5,649,201
Romaine lettuce	21,531,432	Broccoli	4,712,754
Cantaloupe	9,194,931	Watermelon	4,056,847
Spinach	7,733,769	Cauliflower	3,341,121
Leaf Lettuce	6,485,046	Cabbage	3,169,207

As detailed below, the Citrus, Fruit and Vegetable Standardization (CFV) Program and the Federal State Inspection Service Program conducted 20,841 inspections last year. 19,859 were shipping point and 982 were market. In addition, CFV issued 548 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 CFV through license fees and carton assessments, which are reviewed monthly and adjusted yearly. The Federal State Inspection Service Program is entirely funded on a fee-for-service basis.

The Citrus, Fruit and Vegetable Advisory Council, 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 CFV staff to review program policy and budgetary items.

Standardization Program

Arizona citrus, fruit and vegetable producers rely on the Department for increasing the potential for domestic and international marketing, protecting against exporting, importing, selling of substandard produce by development and enforcement of uniform standards. CFV assists the Arizona produce industry, including growers, shippers, contract packers, dealers and commission merchants, in complying with product quality standards.

Federal State Inspection Services Program

This year CFV successfully completed its twentieth year managing the Federal State Inspection Services', 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. Nogales is the second busiest port-of-entry for produce in the United States. Last year department staff inspected at total of 23.8 million packages, with more than 3.5 million packages of field tomatoes, 1.6 million avocadoes and 16.9 million lugs of table grapes imported from Mexico and a variety of other commodities, including watermelons, peppers, cucumbers, squash, onions and citrus.

It is important to note CFV 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, the Department, 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. Last year state auditors performed 42 GAP/GHP audits and seven Tomato Protocol Audits.

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. This agreement was renewed for an additional four years in October 2015.

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, radicchio, spring mix, spinach, cabbage, kale, arugula or chard.

Assessments on signatories to the Arizona Leafy Green Products Shipper Marketing Agreement are based on cartons or carton equivalents of affected commodities sold. Shipper means a person that engages in shipping, transporting, selling or marketing leafy green products under his or her own registered trademark or label or a person who first markets the leafy green products for the producer. It does not mean a retailer.

Currently the AZ LGMA has 38 signatory shippers that represent 97% 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. Last year LGMA auditors performed 107 Audits.

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 Department plays an integral role in the statewide gleaning effort with CFV inspectors notifying key food bank officials of upcoming seasons and identifying 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 30 million pounds of produce collected and distributed to food banks and other organizations serving those in need during this past year.

Environmental Services Division (ESD)

The Arizona Department of Agriculture Environmental Services Division is responsible for serving our customers and protecting public health, agricultural workers, consumers and the environment. The Division is made up of the Licensing Section which provides licensing for many of the agency programs ensuring excellent customer service and appropriate cash handling. The other part of the division is the Compliance Section which 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 ensuring compliance with environmental laws and rules. They also inspect any place where feed, fertilizer, pesticide and seed (the non-food products) are sold as well as review labels and take samples for analysis at the State Agricultural Laboratory to ensure consumers are receiving what is represented on the labels.

Staff Allocations

The Environmental Services Division had 14 full-time employee positions as of June 30, 2016. Six of these positions are in the field and are responsible for sampling various nonfood products, ensuring compliance with non-food product, pesticide use and worker protection statutes and rules.

Licensing

The Department of Agriculture is committed to providing excellent customer service on a timely basis. This continues to be proven out by the many customer service survey cards returned stating what a pleasant experience it was and how helpful and friendly the employees were.

Industry Fees Protect Consumers

The Non-Food Quality assurance program is funded with no general funds. The funding comes from 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 (fertilizer for nonfarm use, including home gardens, lawns, golf courses, parks and cemeteries) registration and a $0.25 per ton fertilizer inspection fee; a $100 per product pesticide registration; and an annual seed license fee of $50 for dealers and $100 for labelers. Approximately one-half of the money collected for seed licensing is used for 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 FY2016, $1,009,066 in fees was collected for the WQARF: $81,700 in fertilizer fees and $927,366 in pesticide registration fees.

Testing Center

Besides processing licensing applications the Environmental Services Division administers tests that include milk haulers, cotton seed samplers and a myriad of pesticide-use licenses. Tests are administered Monday through Friday at Department offices in Phoenix, Yuma and Tucson. To schedule a testing appointment, applicants call (602) 542-3578 (Phoenix), 928-344-7909 (Yuma) or 520-770-3035 or 520-770-3036 (Tucson).

Exams Administered in FY 2016

Total No. of Test Administered	Pass Rate	No. of Unique Testers
325	71.69%	290

The following table represents the total number of certifications, licenses, permits, & registrations issued by the Licensing Section in FY2016:

Certifications, Licenses, Permits, & Registrations issued in FY2016	
Pesticide Companies	1,569
Pesticide Products Registered	10,694
Fertilizer Companies	445
Specialty Fertilizers Registered	2,951
Feed Companies	754
Seed Licenses	1,142
Dairy/Milk Industry Licenses	408
Aquaculture Licenses	63
Egg & Egg Products	120
Meat Industry Licenses	231
Native Plant Permits Issued	911
Native Plant Tags	40,130
Feedlot Licenses	20
Equine Rescue	7
Equine Hauling	20
Free Sale Certificates	319
Free Sale Products Registered	2,249
WPS Trainer Certificates	319
Livestock Brand Certificates	2,176
Ag- Total Licenses Issued	47,854

Pesticide Use Related Credential Summary FY2016	
Environmental Services	
Agriculture Total Licenses Issued	**2,274**
Pest Management	
Pest Management Total Licenses Issued	**9,964**

The Pest Management Division has an internet based license renewal system – RenewEZ; which processed 90% of all renewals received in FY2016. All certifications and licenses expired on May 31st.

Compliance

Pesticide Compliance

The inspection staff conducts a number of different types of health and safety inspections. The Department inspection staff observes applications, mixing and loading, storage and empty container disposal of pesticides to ensure pesticides are being used safely. They inspect businesses that repackage, manufacture and distribute pesticides to ensure compliance with state and federal pesticide sales, manufacturing and bulk storage regulations.

Restricted Use Pesticides

Any product making a claim to control, mitigate, repel, kill etc. a pest is a considered a pesticide by Arizona and Federal law. Inspections are conducted at pesticide marketplaces to ensure that pesticides are registered with the state and the Environmental Protection Agency.

Fertilizer Tonnage FY2016 (in Tons)			
Bag	**Bulk**	**Liquid**	**Total**
105,844	**77,017**	**233,055**	**415,916**
Feed Tonnage FY2016 (in Tons)			
1,654,187			

Pesticides 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 for use in the United States.

Inspections at pesticide dealers and on agricultural establishments ensure pesticides classified as restricted use are sold and used only by certified individuals. Restricted use pesticides are those that have the potential to pose a higher risk and therefore can only be used under the direction of a certified applicator. The applicators become certified through testing, which ascertains their understanding of label directions and their ability to manage the associated risks.

Report pesticide misuse

The Environmental Services Division (ESD) has a long standing Pesticide Emergency Hotline at 1-800-423-8876 where potential pesticide misuse can be reported. Arizona requires that this number be part of the required worker safety training elements so workers and handlers have the knowledge to make it easier to report worker protection standard (WPS) concerns. Third party pesticide misuse/drift complaints are also received from Arizona residents calling directly to the Department main telephone number, (602) 542-4373. Such calls are forwarded to ESD inspectors for further investigation.

Misuse is taken seriously

Complaints alleging pesticide misuse are promptly and thoroughly investigated. Once a complaint investigation is complete, a recommended disposition is prepared. No recommended disposition dealing with a third party complaint can take place without a review and approval by the Associate Director, the Director and by an attorney from the Office of the Arizona Attorney General. In cases where facts document

a violation occurred and all reviewing parties agree a violation of the pesticide laws occurred, a citation will be issued. Cited parties may request a hearing with the Office of Administrative Hearings or pay a civil penalty to the state general fund as established by law for their actions.

Agricultural Worker Safety

Farms, forests, nurseries and greenhouses purchasing and applying agricultural use pesticides must comply with Arizona's Worker Protection Standard (WPS). Golf courses which have nursery facilities (move a plant from one location to another) are also subject to the Worker Protection Standard. The worker safety program and regulations are designed to protect agricultural workers and pesticide handlers from pesticide related injuries.

This year there were changes made to the WPS. These go into effect January 2, 2017 and 2018. The major changes include:

- All handlers and early entry workers must be at least 18 years old.
- Workers must receive full training before they enter into an area that has had a pesticide applied within 30 days plus the restricted entry interval (REI).
- Workers and handlers must be trained annually with an expanded list of subject matters. The expanded list does not start until 2018. Records must be kept on the training for 2 years.
- Application records must not only be kept at the central posting location for 30 days plus the REI. They must be kept and available to employees for 2 years.
- Anyone who will be wearing a respirator must be evaluated and fit tested. This conforms to OSHA respirator requirements. Employers must keep records of all this.
- Specified amounts of water are now required for workers and handlers. (1 and 3 gallons respectively)
- There is now an application exclusion zone in which no one can enter. Think of it as a halo around the application equipment. Applicators must stop if someone is within the specified distance and workers must make sure they stay at least that distance from application equipment.
- The safety poster, in addition to being placed at the central location, must also be at a decontamination location where more than 11 people are working.
- The law prohibiting retaliation by an employer against an employee who is trying to be in compliance with the WPS, has also been strengthened.

Education and Outreach

During the state fiscal year, ESD Compliance staff, along with Agricultural Consultation and Training staff (ACT), conducted six Pesticide Safety Train-The-Trainer Workshops in English and Spanish for new trainers and those with expired certificates. The full-day workshops were held in Phoenix, Yuma, Mohave Valley and Flagstaff. In addition to these workshops, ESD and ACT staff also presented seven, 4-hour refresher courses for current pesticide safety trainers in Yuma, Maricopa, Mohave Valley, Flagstaff and Chino Valley. Attendance to these workshops totaled 187 industry members.

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 of continuing education for attending the full day course. The courses were held: November 19 in Yuma, December 2 in Maricopa

and December 9 in Safford. Courses covered the Worker Protection Standard, certified applicator recordkeeping, pollinator protection, among numerous other topics important for the safe use of pesticides.

ESD Compliance staff attended training/conferences as follows:

- 2015 Desert Ag Conference – Chandler, AZ
- Southwest Ag Summit – Yuma, AZ
- Dia Del Campesino Health and Information Fair – San Luis, AZ

Groundwater Protection

The Arizona Department of Agriculture sampled in April, 2016,. More than 1600 analyses were performed on samples for the active ingredients on the state's groundwater protection list and pesticides of interest list for the EPA. The State Agriculture Laboratory does the analysis. The funding for the analysis has been provided by the US EPA through the agency's cooperative agreement. Working as a team with ADEQ, all new agricultural use products are reviewed before registration to ensure the state's groundwater resources are protected.

Pesticide USE & Worker Safety Violations Observed

Pesticide Control (USE) Violations	Number of Violations
Drift / Overspray	**1**
Illegal Sales	**4**
Restricted Use Records	**2**
Operating without a valid license	**4**
Worker Safety Violations	**Number of Violations**
Training	**9**
Central Posting – Missing / Incomplete - Inaccessible	**5**
Decontamination	**1**

Non-Food Quality Assurance

These inspectors also are responsible for the Non-Food Quality Assurance program inspections (feed, fertilizer, pesticide and seed). Inspection staff collect samples of animal feed, fertilizer, pesticide and seed products in the marketplace. Marketplace inspections can be conducted at potentially any facility that sells or distributes these products. Inspection staff check product labels to ensure proper registration and proper company licensing in Arizona.

A "Cease and Desist" order and "Warning Letter" are issued if a product does not pass laboratory analysis or if found unlicensed or unregistered. They can also be issued for other label related concerns. For seed and fertilizer, there can also be penalties associated with bad products.

Marketplace Inspections and Sampling

Sample Type	Collected	Analyzed	Failure (%)
Feed	100	218	7
Fertilizer	100	243	11
Water	16		n/a
Pesticide Formulation	78	78	10
Pesticide Residue	39	102	n/a
Seed	119	357	

Samples can have numerous analyses.

Marketplace Inspections and Sampling Enforcement Actions

	Number
TOTAL NUMBER OF CASES OPENED	**55**
CEASE & DESIST ORDERS ISSUED & Warnings	**55**
Unregistered/Unlicensed	**45**
Quality Assurance Analysis Failures	**26**

Definitions: *Warning/Notice of Violation (NOV) - Warns a manufacturer or distributer 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

Pesticide Container and Containment Inspections

Since 2011 container and containment inspections are required by the Environmental Protection Agency (EPA). Working under a cooperative agreement with the EPA, Department staff inspect pesticide retailers that repackage pesticides, commercial applicators and custom blenders. Those retailers must comply with federal regulations if they handle agricultural pesticides and have a stationary container or pesticide dispensing area itemized in the regulations.

Pesticide Producer Establishment Inspection

The Department's cooperative agreement with the Environmental Protection Agency (EPA) requires Agency staff to inspect pesticide producer facilities. The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requires production of pesticides and pesticidal devices in a registered establishment. Companies that produce pesticides, pesticide active ingredients or pesticidal devices, including companies that import these items into the United States, must register as a pesticide producing establishment and file production reports with the EPA. FIFRA definition of "production" includes formulation, packaging, repackaging and relabeling of any pesticide product or device. Production in an unregistered establishment is a violation of FIFRA.

Bovine Spongiform Encephalopathy Inspections (Mad Cow Disease)

The Compliance Section, working under a cooperative agreement with the Food and Drug Administration (FDA), conducted 36 inspections of feed manufacturers, dairies, feed yards, trucking companies and dealers. Bovine Spongiform Encephalopathy (BSE) Inspections are conducted to access compliance with federal regulations regarding animal feed and their ingredients. This is to ensure the health and safety for both ruminants and human consumption.

Country of Origin Labeling (COOL)

For the sixth 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 assigned 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, pork, veal, goat, lamb/mutton, chicken, ginseng, 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. A total of 36 follow-up inspections took place at businesses that previously were inspected and had some non-compliant issues and 20 initial inspections.

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 (provide written pest control recommendations) are required to earn fifteen continuing education credit hours annually.

Pest Management Division (PMD)

INSPECTIONS

Pesticide Use Inspections

One of the duties of OPM Compliance is to perform Pesticide Use Inspections (aka Use Inspections). These inspections involve monitoring an applicator applying, storing or disposing of a product. OPM believes that monitoring compliance protects the public by reducing the number of pesticide misuses. The number of Use Inspections performed for FY 2016 amounted to **818. The top five categories of inspections were as follows:**

1	General Pest / Public Health	389
2	Wood Destroying	267
3	Turf and Ornamental	99
4	Right of Way / Weeds	48
5	Fumigation	4
6	All other categories	8

Non-Use Inspections

Non-use Inspections are inspections that do not involve the actual "monitoring of pesticides". They are Inspections of pesticide treatment records, vehicle inspections (ensuring labels, safe working equipment and personal protective equipment are onboard), office records (e.g. dates employees licensed) as well as visits/inspections at schools, childcare and health care facilities explaining the purpose of the OPM and the requirements to be licensed. **PMD compliance staff conducted 673 non-use inspections.**
The top five categories of inspections were as follows:

Office Inspections	341
Certified applicator treatment records	120
Vehicle Inspections	177
Child Care visits	19
School Visits	15
Wood Destroying Insect Inspections	0
Health Care visits	1

Consumer Protection Monitors

Inspectors utilize Pretreat Tag Monitors, also known as "Consumer Protection Monitors (or CPMs)", to determine if consumers received a termite pretreatment that complies with state and federal requirements. This monitoring program does not disrupt the work schedule of a business, qualifying party or applicator, because it does not involve them, unless a violation is found. The inspector visits newly constructed areas, views the pretreatment tag the applicator is required to attach to the site after pretreatment. Then, the inspector measures the site, calculates the amount of termiticide that should be applied and compares his findings with the information the applicator documents on the tag. The inspector use the pretreat tag to not only verify the proper quantity, strength and dosage of termiticide to a site, but also to determine if the business performing the treatment is reporting the treatments to the Office as required by Law. **In FY 2016, PMD inspectors performed 192 Consumer Protection Monitors.**

Investigations

The Division conducted 128 inquiry investigations in FY 2016. Inquiries, threshold investigations, are basically preliminary investigations. They take 30 to 60 calendar days and provide information for Compliance staff to determine if there is evidence of a violation. Inquiries come from consumers, licensees, agency Staff or referrals from the EPA or other State or local government agencies. If violations are found, the inquiries then become complaints. The inquiry categories were as follows in Fiscal Year 2016:

Category	Inquiries Open
3rd Occurrence	1
Corrective Work Order	1
Final Grade	1
Misuse	27
90 Day	6
QSD	9
Records	10
TARF	1
Unlicensed Applicator	5
Unlicensed Activity	62
WDIIR	4
Felony	1

Complaints

PMD issues a citation only after the Compliance Director, Attorney and the Director have conducted a review of the investigative report and have determined that a violation meriting disciplinary action has occurred. To maintain consistency, the Compliance Director utilizes an Enforcement Response (ERP) guidelines, which take into account case specific factors and provide guidance, in the determination of the appropriate disciplinary action. Penalties may include administrative warnings, civil penalties of up to $1000, or license suspension/revocation for the most egregious violations. **In FY 2016 the PMD resolved 58 complaints, and 62 of them were closed.**

The categories for the complaints are as follows:

Category	Complaints Closed
3rd Occurrence	0
Corrective Work Order	0
Final Grade	1
Insurance	12
Misuse	4
90 Day	0
QSD	4
Records	2
TARF	1
Unlicensed Applicator	4
Unlicensed	32
WDIIR	2

Consumers can visit **http://www.sb.state.az.us/ComplaintSearch.php** and view the complaint history of any respondent whom the PMD has opened and resolved a complaint.

Type of Disciplinary Action	Number
Administrative Warnings	**71**
Civil Penalties	**$19,060.00**
Number of cases that involved Civil Penalties	**51**
License Suspensions	**3**
License Revocations	**0**
Dismissals	**13**
Cease and Desist Orders	**42**

*Resolved means all of the terms have been met. If a company was issued a penalty, the penalty was fully paid; if an applicator was required to obtain additional continuing education or some other term, it has been completed.

Continuing Education Applications

Individuals holding an applicator certification and those holding a certified qualified applicator license are required to obtain 6-hours of Continuing Education (CE) and 12 hours of CE respectively per year. While commercial CE providers offer training on new pesticide technologies, equipment, application techniques, and business practices, PMD staff offered training regarding Rules and Statutes (e.g. applicator and qualifying party responsibilities, proper record keeping). **In FY2016 compliance staff reviewed and approved 759 PMD CE applications, approving 745 and denying 14. The average amount of time it takes to approve the applications is 6.39 days.**

PMD provided CE classes in Phoenix, Tucson, Yuma and Prescott to 350 applicators.

Initial Licensing Training

Initial Licensing Training (ILT) helps pre-testers better understand the aspects of pesticide, the environment and pesticide labels. PMD Compliance offered ILT courses on 3 occasions to a total of 47 attendees.

Date	ILT CLASS HOURS	ATTENDEES
9-3-15	5	28
12-2-15	4	10
4-7-16	4	9

Industry Outreach

In FY2016 PMD staff spoke to industry members or participated in CE classes, addressing the new Laws and Rules and the agency's organizational structure. **Staff provided Laws and Rules education to a total of 371 license holders and spoke to another 717 individuals regarding various topics related to the agency, the PMD and rules and statutes for which it regulates.**

School and Childcare Visits

State law requires pesticide applications in schools and child care facilities be performed only by ***licensed*** persons and only after the licensee provides the school or child care facility with a minimum of 72-hours advance notification (pursuant to ARS 32-2307). **This fiscal year, inspectors visited 15 schools and 19 child care facilities** to confirm that pesticides were applied by appropriately licensed persons and that employees, students and parents were provided the proper information and warnings of impending pesticide treatments.

Plant Services Division (PSD)

Safeguarding Market Access and Facilitating Commerce

- Safeguarding the State through early detection of hazardous plant pests to minimize the impact of the introduction and the cost to stakeholders to mitigate it.
- Intensive inspection and certification (federal and state) of vegetables, nuts, citrus, ornamentals and various other commodities for domestic and international export; minimization of trade barriers.
- Establishment and enforcement of quarantines to prevent introduction of hazardous plant pests from other states that threaten agriculture (i.e. exotic fruit flies), the environment (i.e. cactus moth) and the public (i.e. red imported fire ant).
- Issuance of compliance agreements and permits to facilitate commerce among businesses within and outside of the state.

Funding to Support Agri-business and Commerce

Plant Services Division received funding through General Fund ($2.4 million) and Federal (more than $1.4 million) sources to support the safeguarding, production, market access and domestic/international movement of numerous Arizona produced commodities including:

Alfalfa
Apples
Chili Peppers
Citrus
Corn (Grain & Fresh)
Cotton
Cotton Seed
Dates
Grapes
Leafy Greens (Lettuce, etc.)
Melons
Onions (Dry)
Ornamentals (Nursery & Greenhouse)
Produce (All Types)
Seed Potatoes
Small Grains (Wheat, Barley, Oats)
Sod
Sorghum
Tree Nuts
Tomatoes
Vegetable Seed
Vegetable Transplants

Fiscal Year (FY) 2016 Impact

In FY 2016 Division inspection staff conducted 10,533 inspections of high risk commodities resulting in 7,138 pests intercepted within the state's interior with 389 identified as serious pests of concern to Arizona's agricultural and horticultural industries. 1,055 federal phytosanitary certificates were issued for the international export of vegetable and ornamental seed, produce, nursery stock, wood products and various other agricultural commodities. More than 1,900 State Phytosanitary Export Certificates were issued for commodity movement domestically. Preclearance of nursery stock for pests before distribution within the State is a major inspection task.

Commitment to Service

The Plant Services Division (PSD) continues its progressive efforts to improve the timeliness, efficiency and quality of customer service delivery in order to meet the demands of an expanding agricultural industry. PSD demonstrates a commitment to service through the following:

- **ON-LINE RESOURCES** - Stakeholder access and interaction with the division is enhanced through web-based regulatory information, guidance and resources by industry grouping; fillable application forms and electronic submission to request certification services; and direct connections to local resources, including the division's regional offices, for expedited service.
- **EXPORT CERTIFICATION** - Exports contribute significantly to Arizona Agriculture's $17.1 billion economic impact on the State. Division staff conduct numerous, intensive inspections annually as requested by various industry stakeholders to facilitate the time-critical interstate (1,919 State Phytosanitary Export Certificates issued in State FY 2016) and international (more than 6,363 total Federal Phytosanitary Export Certificates issued in Federal FY 2016 with 1,055 certificates issued by division personnel in state FY 2016) movement of agricultural commodities.
- **VOLUNTARY NURSERY CERTIFICATION PROGRAM** - During FY 2016, 245 applications were received from Arizona nurseries requesting inspection and certification to comply with the import requirements of other states. Following inspection of each applicant's property, production practices and commodities to be exported, 246 certificates were issued.

Export Enhancement

Arizona's economy benefits greatly from the division'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 resulting in additional, or continued, market access for Arizona agricultural commodities and robust industry growth.

Driving Efficiency and Customer Service through Technology

Digital Imaging System for Sample Identifications:

- Reduced costs to stakeholders with rapid determinations of interdicted pests
- Faster release of regulated products into the stream of commerce
- Facilitates immediate access to identification specialists around the globe

Comprehensive Database Applications:

- Real-time, results-based management data to direct priorities and safeguarding activities for cost avoidance and improved short- and long-term effectiveness
- Centralized ordering of supplies and inventory control = cost savings

GPS/GIS Systems:

- Enhanced accountability
- Improved logistics in routing inspectors through inspection/survey sites
- Ability to define situational areas for accurate cost assessments and execution of eradication/control projects

State Agricultural Laboratory (SAL)

The Arizona Department of Agriculture State Agricultural Laboratory (SAL) 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 laboratory exists in two separate, small laboratories. The table below illustrates where testing is conducted.

Service	1520 W Adams	250 N 17th Ave
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 (rtPCR methods)	C
Dairy Micro		C
Dairy Antibiotics		c
Dairy Pesticides	c	c
Dairy Aflatoxin	c	c
Feed	C	
Fertilizer	C	
Pesticide Formulations	C	
Pesticide Residue	c	C

Legend:
c = capability to perform testing under certain conditions with added/redirected resources
C = capacity to perform testing with current resources

Pink Boll Worm Eradication

The SAL worked in conjunction with the Arizona Cotton Research and Protection Council (ACRPC) and the United States Department of Agriculture (USDA) to develop a method of identifying native pink boll worms. This insect is a significant pest affecting the production of cotton in arid climates. In an effort to eradicate the pest, the USDA releases millions of sterile pink boll worm moths into the environment in areas where cotton is grown. The sterile insects compete with any remaining native insects during mating, effectively reducing the propagation of the species. This program has been very successful and the damage caused by the pest has been largely eliminated.

To monitor the success of the eradication, thousands of insect traps are placed and monitored in cotton production areas throughout the US and Mexico. Before releasing the pink boll worm moths, the USDA must "mark" them in order to delineate the sterile moths from any naturally occurring moths. In the past,

the pink boll worms were fed a chemical dye which aided in the detection of the sterile moths. However, the longer the released moths were in the environment prior to being trapped, the lower the concentration of the dye that remained in the moths for detection. As the population of the native moths approaches zero, the difficulty in detecting a very low level of dye in the sterile moths has become an impediment to determining whether the eradication effort needs to continue.

SAL scientists developed a new method of determining if a trapped insect was a released sterile moth or a native moth. Utilizing advanced instrumentation, SAL scientists could detect small amounts of the element strontium when present in the body of the insects. USDA modified its rearing procedures to incorporate strontium into the diet of the sterile pink boll worms. Now moths obtained from the traps are tested by SAL scientists; moths containing significant amounts of strontium can be readily identified as sterile moths while those lacking strontium can be assumed to be native moths. The lab has processed almost 2,000 samples for the ACRPC this year.

Homeland Security

The SAL continues to maintain its capabilities to provide assistance to the State and the Nation in the event of a homeland security emergency. 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.

This year marked the second laboratory audit by the United States Department of Agriculture (USDA) of the laboratory's meat pathogen testing program. This year's audit is the next step in forcing all state laboratories to become accredited to the ISO 17025 standard.

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. This year the laboratory began participating in a new PTP for pathogenic organisms in meat products. This was begun in response to increased QA requirements from the USDA for its cooperative programs with the States.

Animal Disease Detection

The laboratory 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.

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 USDA's Food Safety and Inspection Service program.

The 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 application of agricultural chemicals, 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. These regulatory samples are collected by investigators and delivered to the laboratory utilizing stringent chain of custody procedures. Sample types received include water, soil, produce, foliage, animal tissues, air, clothing and surface swabs. Complicating the analytical testing process are more than 11,000 pesticide products registered for use in Arizona, any one of which could need to be detected as part of an investigation. 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 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; 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. SAL's seed analysts are certified by the Association of Official Seed Analysts.

Weights and Measures Services Division

The Weights and Measures Services Division strives to protect the integrity of Arizona's marketplace by ensuring that equity and accuracy are preserved for consumers. The Division also educates businesses about regulations and helps those businesses comply on an equitable basis.

Primary Responsibilities

- Preserve and defend the measurement standards by which all commerce is built upon in order to deliver fair competition in the Arizona marketplace.
- Ensure that commercial devices (scales, fuel meters, liquid petroleum gas, etc.) used for the sale of commodities by weight, measure or count are licensed and accurate.
- Work to prevent unfair dealing by weight, measure or count and conduct regular inspections and investigations of potential fraud in commodities.
- Maintain the state's primary standards (those measurements upon which all other measurement are based).
- Ensure proper labeling of products sold by weight, measure or count (a gallon of gas is a gallon; your breakfast cereal weighs 20 oz. as stated on the package, etc.).
- Conduct regular inspections to ensure that prices are posted and items scan at the correct price.
- License weighmasters who are responsible for weight certification at truck stops and other locations for interstate commerce purposes.
- Manage the Arizona Cleaner Burning Gasoline and the vapor recovery air quality programs.

Major Accomplishments

Program Transfer to the Department of Agriculture

The Department of Weights and Measures (AZDWM) continued to work on the transition of the program to the Department of Agriculture, Weights and Measures Services Division as authorized by the legislature in HB2480 in April 2015.

- Staff and associated budget moved to the Agriculture building November 1.
- A new lease agreement was signed with the property management company saving approximately $70,000 per year.
- The agency worked with stakeholders to prepare legislation clarifying the requirements related to the transition. The results of these efforts was the Weights and Measures Omnibus Bill, HB2171, signed by the Governor May 12, 2016.

Program Transfer to the Department of Transportation (ADOT) and the Department of Public Safety (DPS)

- The last transition element to remove the vehicle for hire program from the AZDWM shared computer system was completed in April 2016.
- The moving complaints program was moved to DPS between January and April 2016. Elements of the transition included staff training, physical asset transfer and budget transfer allocation.

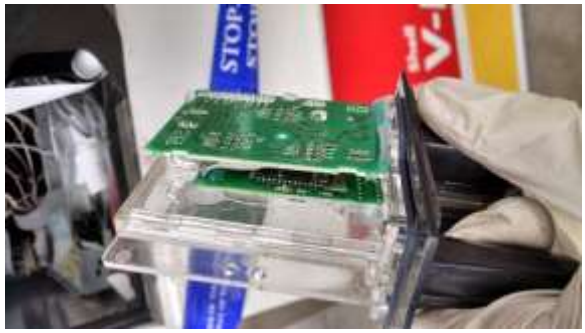
Update of Standard Operating Procedures

AZDWM undertook a review of major standard operating procedures to verify compliance with state and federal guidelines, improve consistency, and increase the knowledge of our investigators.

Increased Focus on Skimming Devices

In December 2015, there was an increase in number of credit/debit card skimming devices identified in gas dispensers. Skimmers are used by criminals to steal consumer credit/debit card information. The agency increased the number of inspections and worked with stakeholders to address this growing problem.

- HB1294, signed by the Governor on May 11, 2016, was developed through a concerted effort by the department and law enforcement to increase the penalties on criminals found to be involved in these crimes.
- AZDWM made improvements and increased the communications between law enforcement, the banking industry, gasoline retailers and the general public when skimmers were found.
- A protocol for increased inspections has been implemented when skimming devices are identified.



Implementation of LEAN

AZDWM completed 2 LEAN projects in FY16.

- Improve the efficiency of fueling device inspections, which take the largest part of the investigators time. Review of this process resulted in modification of testing methods that were implemented in April 2016, and are anticipated to result in a savings of 2,400 to 3,600 hours annually.
- As a method to reduce travel time, we have taken a different approach to scheduling inspections by providing inspectors more latitude regarding the timeframe they have to conduct inspections at sites. This allows them to better group neighboring sites and manage their travel time.

Removal of stage II vapor recovery equipment

HB 2128, passed April 2104, requires more than 1,000 gasoline stations located in the Maricopa County region to remove stage II vapor recovery control during a 2-year period starting October 1, 2016. AZDWM has continued working with stakeholders to prepare for this effort.

- Completed the rulemaking that defines the requirements for stage II vapor recovery removal, as well as the ongoing requirements for the stage I vapor recovery remaining at the gas stations.
- Distributed information and conducted 3 conference calls to communicate requirements to impacted site owners.
- Implemented changes to the computer system to allow all scheduling, reporting and inspections reports to be conducted online.

Performance Numbers Fiscal Year 2016

Overview:	**Detailed Highlights:**
Inspections conducted: 8,212	Total Devices Tested: 43,468
Number of Devices Licensed: 120,993	Gas Pump Tests Conducted: 30,716
Consumer Complaint Inspections: 1,168	Scales Tested: 6,350
Civil Penalties Issued: 288	Price Posting/UPC Inspections: 3,036
Civil Penalty Amount Assessed: $174,340	Fuel Quality Samples Analyzed: 2,362
	Dispenser checked for skimmers: 2,318
	Skimmers Reported/Found: 35
	Overall Site Compliance Rate: 84.5% Pass