

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**

FY2017

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Arizona Department of Agriculture

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September 30, 2017

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

Dear Governor Ducey:

I am pleased to present to you the Arizona Department of Agriculture's Annual Report for Fiscal Year 2017. We continue to strive for excellence and are working diligently to enhance our customer service initiatives with a goal to be recognized as a world class organization and the best Agriculture Department in the country.

The Department focused on our industry partners, who highlighted their needs through a series of stakeholder meetings that we hosted March - July of this year. The results of those meetings yielded a new vision statement, which in turn helped to guide our new strategic plan. Our new vision statements reads:

To be recognized as a global leader in enhancing and protecting agricultural commerce, championing consumer awareness and protection while fostering and promoting an understanding of Arizona agricultural products and producers.

Moving into FY 2018, we will continue to work with our customers and stakeholders to ensure that we are responsive to their needs. This December we are again co-hosting the Agribusiness Roundtable. The importance of agriculture and its contributions to the citizens and to this state is apparent. Agriculture has been estimated at being a \$17B industry resulting in the creation of 77,000 jobs in our great state.

The past two years, we have continued to protect the food supply and its quality for the people of Arizona, the U.S. and the world. We will continue to do so. Meat, poultry, dairy and egg products are safe, animal feed (including pet food) meets label requirements, and fruit, vegetables and plants brought into this state are not carrying harmful pests or diseases.

Additionally, we have revised our Agency Scorecard to more accurately reflect our core business processes and goals and these metrics will continue 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 efficiency and our processes so we can provide government at the speed of business.

I am continuing to work with all of our industry sectors to help us in implementing our long-range five year plan for the Department. Not only are we providing industry with efficient service, but it is important we continue a path of excellence through long-range planning.

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

Sincerely,

Mark W. Killian Director

MK:st



As the Arizona Department of Agriculture ("Department") completes its 26th year as an agency, the Department has a 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 Department was created in 1991 and sought to bring together various boards and commissions and all aspects of agriculture under one roof, using the fewest regulations possible while improving customer service, enhancing protection of the public, consumers and natural resources. Additionally, the Department was tasked with assisting producers in raising the best crops and herds, educating the public about Arizona agriculture and increasing the demand for our commodities.



Throughout FY 2017, Director Killian held four strategic planning meetings to cover the eight divisions within the Department, which solicited feedback from its customers and the public. In addition approximately 50 people from various agriculture industries assisted the Department in developing a vision and long-range strategic plan.

Top priorities that many partners cited were the need to advocate for agriculture, encourage continuous improvements, challenge the status quo, commit to excellent customer service and employ professional employees. People should understand and recognize the magnitude of Agriculture's impact on the Arizona economy - \$17B and more than 77,000 jobs.

The Department is still focusing on enhancing our customer service and helping clients understand the need for certain regulations and how to comply with such regulations. The Department continues to review all regulations to make sure they are still necessary. This past year, this ongoing process has already eliminated four rules in our Animal Services Division.

The agribusiness community stretches further than just catering to farms and ranches. To further highlight the economic impact of agriculture in the state, the Department has joined with the Arizona Agribusiness and Water Council to host its Third Annual Arizona Agribusiness Roundtable. Governor Doug Ducey spoke to more than 200 people at one of these events, representing a broad spectrum of businesses that rely upon



agriculture. This year we have industry leaders to discuss nationwide issues relating to agriculture as well as the Farm Bill and we anticipate having approximately 300 persons in attendance.



Diversity is key to Arizona's agriculture stability from year to year. However industry always faces challenges. The Department assists industry in addressing these challenges.

Education is also an important task of the Department. Although agriculture is vital in that it provides our food supply and is a large contributor to the economy, it also provides open space, wildlife habitat and efforts to protect and conserve our natural resources.

Several divisions of the Department work together to ensure Arizona's food supply is safe, commodities are pest-free and workers are protected, in addition to checking that pesticides are applied correctly and according to federal safety regulations.

Arizona is the 3rd largest producing state for principal fresh market vegetables, and it is 4th in the country in acres of organic vegetables. Arizona agriculture produces more than 112 million cartons of fresh produce. Arizona growers export tons of plants, seeds, nuts, vegetables and livestock feed to over 70 countries around the world. The agriculture industry is growing in Arizona as more producers see the benefits of the weather and the business climate.



Arizona's livestock industry covers beef, lamb, mutton, egg and dairy production. In 2016, ranchers in Arizona produced 490 million pounds of red meat. Dairies and dairy farmers produce the state's number one commodity--with almost 200,000 cows producing more than 480 gallons of milk. Department staff work with industry to make sure food-borne bacteria and viruses are not present from the beginning of the inspection 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 duties. Additionally, staff check the quality and quantity of fuel, check various scales, prices at retail and check for credit card skimmers at gas pumps.

Department employees also ensure that those people spraying homes and fields to prevent pests are educated and licensed, and that pesticide products sold in stores match the labels. Investigators follow up on calls from the public about animal welfare and native plant act violations.

It is essential that the Department is as efficient as possible. Approximately 270 people oversee almost 50,000 licensed professionals, conduct more than 12,500 inspections and 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 some of the funds needed to conduct all of the Department's tasks. 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.

Agricultural Consultation & Training (ACT)

The Agricultural Consultation and Training Program is an innovative compliance assistance program unique to an agricultural regulatory agency. This program embraces the Arizona Department of Agriculture's (AZDA) 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 AZDA's enforcement programs, allowing staff members to provide a formal means by which the regulated agricultural community may request compliance assistance without regulatory intervention. Agricultural Consultation and Training serves Arizona's diverse agricultural community by promoting agriculture, conducting training and increasing awareness of, and voluntary compliance with, 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 (EPA) 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 Agricultural Consultation and Training (ACT) Pesticide Safety staff assists agricultural employers in complying with federal and state Worker Protection Standards by providing pesticide safety training for pesticide handlers and agricultural workers, developing pesticide information resources in English and Spanish, and performing mock inspections to assist farm and nursery owners in complying with pesticide regulations.

Pesticide Safety Training

Among the more popular services provided by ACT staff are free pesticide safety training courses. 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 are open to anyone who would like to attend. Licensed and certified pesticide applicators may also attend to learn about the WPS and to receive two hours of continuing education toward the renewal of their licenses.

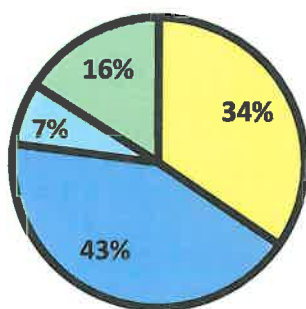
During FY 2017, ACT staff presented pesticide safety training to 414 people who were employed by 65 agricultural operations, landscaping companies, tribal communities, golf courses and governmental agencies.



The two-hour pesticide handler course was provided to 319 people who work directly with pesticides. Of the handlers, 10 licensed applicators participated to receive Continuing Education hours toward the renewal of their licenses.

In addition to the pesticide handlers, 95 people attended one-hour pesticide safety courses 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 below, 77% of the people who attended a pesticide safety training course were trained as pesticide handlers and the remaining 23% were trained as agricultural workers.



- Pesticide Handler - English
- Pesticide Handler - Spanish
- Agricultural Worker - English
- Agricultural Worker - Spanish

Arizona Pesticide Safety Train-the-Trainer Workshops

Each year, staff in the Arizona Department of Agriculture's (AZDA) Agricultural Consultation and Training Program work with industrial hygienists from AZDA'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 addition to attending the workshop, participants must pass a 50-question trainer exam before becoming qualified to provide WPS training in Arizona.



In fiscal year 2017, the team of instructors presented 18 workshops to 395 people. The workshops were held in Clarkdale, Marana, Phoenix, Willcox, and Yuma, Arizona. By the end of FY17, 351 people completed the trainer requirements and earned a 3-year trainer qualification, bringing the total number of currently-qualified Arizona WPS trainers to 848.

Pesticide Applicator Licensing Exam Events

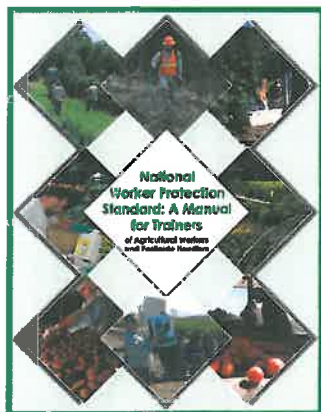
ACT's Pesticide Safety Field Consultant (PSFC) administers private and commercial applicator licensing exams during trade shows, conferences, and to large groups working in remote areas.

During FY17, the PSFC was invited to provide pesticide applicator pre-certification training and exams for 143 people during eight events. The events were held in Clarkdale, Flagstaff, Fort Apache, Ganado, Phoenix, Willcox, and Gallup, New Mexico.

Event participants worked for state, federal and tribal governmental agencies involved in invasive weed control programs, golf courses, and privately-owned agricultural operations. These were the first pesticide safety training events for most attendees. Sixty-seven test takers passed the National Pesticide Applicator's Core Exam and earned a Private Applicator Certification. An additional 16 people passed both the National Pesticide Applicator Core Exam and a use-specific category exam to earn a Commercial Applicator's Certification.

Pesticide Safety Teaching Tools, Informational Resources, and Training Modules

ACT's PSFC 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 WPS began on January 2, 2017. ACT Pesticide Program staff felt it was imperative to use a variety of methods to inform Arizona's agricultural community about these changes.

In addition to providing WPS overview presentations during agricultural employer and commodity group meetings, ACT pesticide program staff worked closely with the Pesticide Educational Resources Collaborative (PERC) to develop, translate, and edit new national WPS materials. Materials included a pesticide safety trainer manual, accompanying PowerPoint presentations and on-line train-the-trainer course modules.

Air Quality Compliance Assistance

Regulated Agricultural Best Management Practices

The Regulated Agricultural Best Management Practices (RABMP) program has completed its fourteenth 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. With the addition of the newly formed West Pinal County Nonattainment Area, the RABMP Coordinator is still actively reaching out to growers in Pinal County.

The air quality program staff regularly participates in local meetings of agricultural stakeholders such as:

- ADEQ's Regional Haze and Natural Events group
- Maricopa County rule 310 and 310.01 public process
- Pinal County PM10 reduction stakeholder group
- Yuma County stakeholder groups for the Ag BMP program
- Governor's Agricultural Best Management Practices Committee Technical Workgroup
- State and County Farm Bureau
- Pinal County I-10 Corridor Dust Mitigation Workgroup

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 professionals, 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:

- Reduce tillage operations by implementing conservation tillage.
- Combine tractor operations to reduce the number of passes by a tractor in a field.
- Groom manure surface to reduce PM emissions from wind erosion.
- Provide cooling in the corrals to increase the stocking density in the cool areas of the corral.
- Cover silage to reduce emissions from wind erosion.
- Apply and maintain aggregate cover on unpaved roads to help reduce the generation of PM by acting as a barrier to erosive forces from vehicle traffic.
- Limit tillage and harvest activity during periods of high dust generation.



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 2017 there were 137 visits made to producers to promote the program.
- **Agricultural BMP training for producers.** In fiscal year 2017 there were 19 trainings, presentations, and promotions of the program to agricultural workers and representatives. Outreach and training reached 2,567 participants.
- **High wind advisory email alerts.** During fiscal year 2017, twenty-six forecasts were sent to 339 producers in Maricopa, Yuma, and Pinal Counties.
- **"Air Quality & Agriculture – Air Quality in Action", a quarterly newsletter.** In fiscal year 2017, 1,371 copies of the newsletter were sent to 336 stakeholders in Maricopa, Yuma, and Pinal Counties.
- **Articles and ads in industry periodicals.** In fiscal year 2017, six articles and ads were published with a readership of 11,000 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. During fiscal year 2017, five issues were corrected.



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. New guides were completed to meet EPA's "specific" and "enforceable" definition recommendations in 2015. The RABMP Coordinator continued to distribute the new guides to 69 farms, nurseries, and dairies/feedlots in fiscal year 2017.

The Technical Workgroup to the Governor's Agricultural Best Management Practices Committee met in 2017 to discuss exceedances at the new Hidden Valley PM10 Monitor in Pinal County. In fiscal year 2017 the monitor recorded 27 exceedances due to both wind and stagnation. Producers around the monitor include a dairy, feedlot, and numerous farms. The Technical workgroup has agreed to partner with ADEQ to help provide data from these producers to complete an emissions assessment for the Pinal County Air Quality Division to determine the sources of

the dust. This information will be helpful in determining how to tackle the exceedances at this monitor.

The RABMP Coordinator is a member of the Pinal County I-10 Corridor Dust Mitigation Workgroup. This workgroup consists of Federal, State, and Local agencies to address windblown dust that creates hazardous driving conditions along the I-10 corridor. The area of concern is a five mile radius around mile marker 214. The workgroup is considering implementing both short-term and long-term solutions at this site. Once a solution at this site has been applied, other areas of concern in the corridor will be addressed.

In 2005 the Yuma Ag BMP program was implemented to address the PM10 problem in Yuma County, but no outreach materials were available. Outreach to the community began in fiscal year 2010 to promote the Yuma agricultural industry's proactive approach to addressing the PM10 problem. In fiscal year 2017 the RABMP Coordinator met with producers, attended industry functions, and participated in stakeholder meetings. In an effort to help ADEQ evaluate dust emissions in the Yuma Nonattainment area the RABMP Coordinator submitted a grant proposal to the Border Environment Cooperation Commission to employ added outreach and education for both Yuma and Sonora, Mexico. The project was not selected for funding in this cycle but the RABMP Coordinator will continue to look for other possible grant opportunities in the future.



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



The Agricultural Consultation and Training (ACT) Program of the Arizona Department of Agriculture (AZDA), through a United States Department of Agriculture-Agricultural Marketing Service (USDA-AMS) Specialty Crop Block Grant Program grant, offers Arizona's agricultural community assistance in developing a food safety program that will pass the USDA GHP/GAP audit. 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, stored and handled in the safest manner possible to minimize risks of microbial contamination.

GHP/GAP is a voluntary, on-site farm verification program which has been developed for growers, harvesters, packers, warehouses, transportation lines, and gardeners of consumable specialty crops (fresh fruit, vegetables, and tree nuts). The ACT GHP/GAP Program offers classroom training as well as on-site evaluations for the development of operation-specific food safety protocols for the USDA/AMS food safety audit and certification.

Food Safety Certification

While sales of fresh produce to some buyers do not require a food safety certificate, many buyers of fresh produce require third-party food-safety certification as a purchase specification. Without this certificate, a grower may not be able to sell produce to the larger buyers.



Certification allows for produce sales to restaurants, hospitals, school districts, farmers markets, wholesalers and distributors who accept the USDA GHP/GAP certification for mitigating food safety hazards.

Classroom Training

ACT's Food Safety Projects Coordinator (FSPC) organizes training classes for industry members throughout the state. These lively, interactive classes have been held in Phoenix, Tucson, Flagstaff, Yuma, Snowflake, Cottonwood, Kingman, and Willcox.



The structure of the GHP/GAP training class is tailored to the participants' needs, covering the entire fresh fruit and vegetable industry: growing, harvesting, warehousing, transporting, and whole distribution. Also included is dealing with the possibility of intentional sabotage of produce.

There is no cost to attend the workshop, or for training materials, which include monitoring logs and tracking forms.

Further incentivizing food safety, AZDA will offset the cost of a successful USDA audit with a cost-share grant of up to 75% while funds remain available from USDA/AMS.

Consultations/On-Site Visits

Upon request the FSPC visits farms, greenhouses, aquaponic facilities and aeroponic operations to discuss food safety concerns with the owners. During the on-site visit, the grower and FSPC will review the grower's operation as compared to the GHP/GAP audit, and begin developing their food safety program. During fiscal year 2017 the FSPC conducted 16 on-site consultations, with 8 operations passing the GHP/GAP audit and achieving certification.

Outreach

The FSPC has been invited to present the GHP/GAP program to groups as varied as the University of Arizona's Controlled Environment Agriculture Center (CEAC), Tucson, the East Valley Garden Club, Mesa, Neighborhood veggie growers, Maricopa County Environmental Services, The Arizona Department of Health Services, and the Arizona Tribal Health Services. During fiscal year 2017 the FSPC conducted 7 presentations with over 370 people attending.

During fiscal year 2017 ACT's GHP/GAP Program reached 843 individuals representing 104 AZ specialty crop operations through Arizona Farm Bureau blogs, on-site visits, training, technical assistance and a radio interview.

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 functioned 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 2017, the LCCGP Coordinators monitored 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 (NRCS) Environmental Quality Incentives Program (EQIP) grant which typically requires that the applicant provide a percentage of the total project funding, LCCGP funds could be awarded for use as the required cost share funds to the EQIP contract.
- On-the-Ground Conservation Projects (for example: riparian fencing, water resource development, grassland restoration).
- Livestock deferment funding in relation to a conservation practice or project. For example, if the applicant chooses to implement a conservation management practice such as prescribed burning or herbicide application that requires the deferment of livestock, the applicant may apply for LCCGP funds to cover the costs associated with deferring livestock.



The LCCGP 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 FY17, 56 of the 56 grantees from the fiscal year 2005 cycle, 70 of the 70 grantees from the fiscal year 2007 cycle, 62 of the 63 grantees from the fiscal year 2009 cycle, 42 of the 43 grantees from the fiscal year 2011 cycle, 13 of the 13 grantees from the fiscal year 2013 cycle and 8 of 16 grantees

from the fiscal year 2016 cycle had completed their proposed grant projects. Additionally, throughout fiscal year 2017, approximately \$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 review 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. 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 2017, Arizona's State Plan was approved by the U.S. Department of Agriculture's Agricultural Marketing Service (AMS), and a cooperative agreement, which provided \$917,695.51 in grant funds to the ADA, was executed on October 1, 2016. The SCBGP-FB Program Coordinators worked with sub-grantees to execute grant award agreements, and provide guidance and assistance with quarterly reports and quarterly reimbursements.

On March 2, 2017, AMS announced the availability of \$60.6 million in federal fiscal year 2017 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 \$201,974.00. 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 2017 base grant amount plus the AMS assigned value and acreage of specialty crop production for Arizona is \$1,144,644.53. The SCBGP-FB Program Coordinator submitted the Arizona State Plan to AMS on June 7, 2017.

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 2.6 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 2017 Financial Status - Arizona Citrus Research Council

Revenue	\$43,750.08
Expenses	\$44,768.50

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 24 million cartons of iceberg lettuce in FY 2017. 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 2017, the Council continued to support research projects by granting nearly \$80,000 to the University of Arizona. Some examples of research grant projects include water and salt balance for lettuce thinning irrigation, area-wide monitoring for lettuce insects, evaluation of new species of canarygrass in Yuma county lettuce and evaluation of new insecticides for insect management in desert head lettuce.

Fiscal Year 2017 Financial Status - Arizona Iceberg Lettuce Research Council

Revenue	\$92,072.93
Expenses	\$98,476.75

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 \$56,000 was granted for research projects during fiscal year 2017.

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 2017 Financial Status - Arizona Grain Research and Promotion Council

Revenue	\$138,619.27
Expenses	\$150,247.52

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 Services Division (ASD)

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 36 Administrative Orders issued this fiscal year for animal health issues. Of this amount, 75% were for illegal entry of livestock, 14% were for Equine Piroplasmiasis, 5% were for Equine Infectious Anemia (EIA) exposed equine, 3% were for Tuberculosis (TB) suspects, and the remaining 3% were for Equine Herpes Myeloencephalopathy (EHM).

We managed one TB trace to a beef/rodeo operation in our state from a positive animal at slaughter. During this process, we performed whole herd TB testing on the remaining roping animals that were exposed. No positive animals were identified. Subsequent DNA testing left questions as to whether or not the slaughter house had the correct animal identification. The case was closed by the United States Department of Agriculture (USDA) as there were no positive animals and no more follow up was needed at this time.

No Foreign Animal Diseases (FADs) were diagnosed in Arizona during this time.

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 / APHIS / VS. Their agreements fall into one of two categories: Animal Disease Traceability (ADT) or Umbrella (general program disease surveillance).

Animal Disease Traceability System

The ADT cooperative agreement continued goals that had been in place for several years – specifically improving

trace back of animals after a given disease has been identified in livestock. The goal was to be able to trace back to origin any disease within 48 hours of its recognition. This was a challenging goal, and due to our current data management system and staffing levels, it was difficult to obtain. Laws 2017, 1st Regular Session, Chapter 280 went into effect on August 9, 2017. This bill allows funding for an additional Assistant State Veterinarian, as well as, withdrawing from the ADT cooperative agreement with USDA. This bill also prohibits our agency from sharing animal movement numbers to USDA. However, this bill does not prohibit disease traceability on a program or Foreign Animal Disease outbreak investigation.

Many opportunities exist to work with producers through continued dialogue. We also have the opportunity to obtain more premise identifications. Better identification of populations at risk improves the quality and speed of the response. Better information in regards to location of populations at risk improves the speed and efficiency of a Foreign Animal Disease response.

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 animal agriculture as a whole.

Several Arizona Livestock Incident Response Team (ALIRT) 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 Foreign Animal Disease. Our State Veterinarian and Assistant State Veterinarian has attended the Foreign Animal Disease Diagnostician (FADD) course. Having two FADDs 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 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 primary goals of the NPIP program is to increase AI 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: 19 transporters, 6 processors of fish and shrimp for human consumption, 20 growing facilities, 7 research and educational facilities and 4 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

As of July 1, 2017, the Livestock Inspection Program began tracking field activities through the Arizona Department of Transportation's Enforcement and Compliance Division. This change has resulted in our customers having access to a 24/7 dispatch. The dispatch phone number of 623-445-0281 did not change during this transition. 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 2017 Calls for Service from the Public" at the end of the ASD section.

Self-Inspection Program

Currently, almost 4,900 producers are approved to use the Self-Inspection Program. This is an increase of about 400 from the prior year. At least part of this increase is due to Laws 2016, 2nd Regular Session, Chapter 160, which went into effect on August 6, 2016, allowing swine to be part of this 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. This year the Midwestern University Diagnostic Laboratory was

added to the ALIRT response network to facilitate a more timely response especially for cases in the northern half of the state where a necropsy is needed.

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 25 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 47 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 625 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 computer database system mandated by FSIS called the Public Health Information System (PHIS). This system tracks all aspects of the meat inspection program.

Almost 5,250 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 2017.

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 certified 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 2017, the three Dairy inspectors conducted 904 sample visits, 185 processing plant inspections, 214 tanker driver evaluations, 200 pasteurizer tests (with an additional 103 regulatory seal replacement visits), 253 dairy farm inspections and 165 milk tanker inspections. Inspectors drove just under 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 2017, there were 3,427 dairy samples submitted to the lab, and 8,754 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 2017 seven tankers of milk were disposed of due to positive antibiotic tests for a total of 311,281 pounds. Seven tanker loads, tested by industry, were found to be in violation of the aflatoxin limit for milk (total of 339,280 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 at 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 2017 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 was 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 2017, the Departments conducted 1,696 inspections visits at producers, dealers, wholesalers and retailers. During those inspections, 522,579 individual eggs were graded and a total of 79,781 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. In FY 2017 we conducted a eleven shell egg surveillances. 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 2017 we conducted 13 school lunch inspections.

Graders perform both temporary and resident (in-house) grading services for the egg industry in Arizona. Eleven full-time state employees and one supervisor are stationed at five packing plants and provide inspection / grading services 365 days a year, 7 days a week. In FY 2017 the Department provided 21,461 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 its usability so the Department revised the ESF #11 Annex.

Meetings were held between our agency, the Department of Emergency and Military Affairs, and the American Society for the Prevention of Cruelty to Animals. These meetings were held in order to come up with a joint Mutual Aid Agreement between all parties to identify and coordinate assistance and animal rescue efforts in preparing for, responding to, and recovering from disasters affecting animals.

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 2017, the ingestion pathway federally evaluated exercise was conducted to assess the Department's readiness to protect the food supply in Arizona from radioactive contamination. A passing grade for the agency was provided which allows PVNGS to maintain an operating license by the Nuclear Regulatory Commission. Areas needing improvement were identified, and the Department's performance will be reevaluated in upcoming exercises.

Emergency Response

There were no emergency responses that required resources from the Department of Agriculture.

FY 2017 Calls for Service from the Public

Inspections	
Ownership	4,520
Butcher	1,388
Highway and Road Kill	80
Total	5,988
Welfare	
Equine	624
Cattle	204
Goats	63
Sheep	22
Swine	22
Total	935
Out of Place	
Loose and Stray	747
Theft	35
Total	770

Other	
Dogs Chasing/Killing Livestock	26

Citrus, Fruit & Vegetable (CFV)

Standardization and Federal State Inspection Service

Arizona ranks third in the nation for overall production of fresh market vegetables. Arizona acreage produced over 112 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 85% of the state's total produce production, based on carton count for fiscal year 2017 (July 1, 2016-June 30, 2017) are as follows:

Iceberg lettuce	24,220,149	Leaf Lettuce	5,905,832
Romaine lettuce	22,973,908	Broccoli	5,774,080
Spinach	8,812,895	Cabbage	5,141,604
Cantaloupe	8,676,637	Cauliflower	4,032,473
Spring Mix	6,980,864	Watermelon	2,993,654

As detailed below, the Citrus, Fruit and Vegetable Standardization Program and the Federal State Inspection Service conducted 22,347 inspections last year. 21,588 were shipping point and 759 were market. In addition, the Citrus, Fruit and Vegetable Standardization Program issued 416 licenses to the produce industry.

Industry Funded -- Industry Supported

The Citrus, Fruit and Vegetable Standardization Program and the Federal State Inspection Service are entirely self-funded and receive no general fund allocations.

Standardization Program

Citrus, Fruit and Vegetable Standardization Program Funds are used for the operational costs associated with the collection of fees, licensing produce dealers and shippers and the compilation of statistical data. This includes services conducted for the Arizona Leafy Greens Food Safety Committee, the Arizona Citrus Research Council, the Arizona Lettuce Research Council and USDA Market News. These funds are reviewed quarterly and adjusted yearly by the Citrus, Fruit and Vegetable Advisory Council.

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

Federal-State Inspection Service

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

This Federal State Inspection Service program is administered by CFV and enforces United States import requirements and marketing order restrictions at the international border between Arizona and Mexico. Significantly, Nogales is the second busiest port-of-entry for produce in the United States. Last year, department staff inspected a total of 26.6 million packages, with more than 256 thousand onions, 964 thousand avocados,

1.3 million packages of oranges, 2.7 million packages of field tomatoes and 21.2 million lugs of table grapes imported from Mexico and a variety of other commodities, including watermelons, peppers, cucumbers, squash, onions and citrus.

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

Third Party Audit Program

At the request of Arizona fresh produce industry representatives, the Arizona Department of Agriculture, along with other western State Departments of Agriculture and the United States Department of Agriculture, developed a Third Party Audit program within the existing framework of USDA Agricultural Marketing Service Federal State Inspection. The resulting program is designed to audit the Good Agricultural Practices and Good Handling (GAP/GHP) Practices for the produce industry. Federally licensed state inspectors perform these audits at industry's request. Last year state auditors performed 39 GAP/GHP audits. Again, Citrus, Fruit and Vegetable Program and Federal State Inspection Service developed cost-reduction efficiencies for Arizona's agriculture industries through the cross-training of department inspectors into auditors that provide the Leafy Greens audits for the Arizona Leafy Greens Food Safety Committee.

Arizona Leafy Green Products Shipper Marketing Agreement (Arizona LGMA)

In September 2007 Arizona farmers came together to raise the bar for food safety. The produce industry solicited the first Marketing Agreement in the history of the Arizona Department of Agriculture. As a result the Arizona Leafy Green Products Shipper Marketing Agreement (Arizona 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 the State of Arizona. 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 Arizona LGMA are working collaboratively to protect public health by reducing potential sources of contamination in Arizona-grown leafy greens. Leafy green products of the Arizona 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 and chard.

Assessments on signatories to the Arizona Leafy Green Products Shipper Marketing Agreement are based on cartons or carton equivalents of affected commodities sold. A shipper is 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 Arizona LGMA has 37 signatory shippers that represent 95% of the volume leafy greens grown in Arizona. Arizona 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 to sell products grown in compliance with the Arizona LGMA Metrics, food safety practices accepted by the Arizona Leafy Greens Food Safety Committee. Last year LGMA used the Federal State Inspection Service Third Party Audit program to perform 111 audits.

Organic Certification Cost Share Reimbursement

Through a federal grant, the Citrus, Fruit and Vegetable Standardization program oversees the Organic Certification Cost Share (OCCS) reimbursement program. The OCCS provides cost share assistance to producers and handlers who are obtaining organic certification for the first time or renewing their previous certification. Cost share assistance is provided on a first come, first served basis, as long as funds are available.

Organic operations may receive one reimbursement per certificate or scope of certification per year. The National Organic Program currently recognizes four scopes of certification: crops, wild crops, livestock, and processing/ handling. This means that clients with more than one certification scope may be eligible for more than one reimbursement.

Eligible operations will be reimbursed up to 75% of their organic certification costs, not to exceed \$750, for each NOP scope of organic certification. Any operation that is located within the United States and received organic certification on or between October 1, 2015 and September 30, 2016 may apply for reimbursement.

The Citrus, Fruit and Vegetable Standardization Program and overseen this program since FY 2010 and has provided reimbursement for 241 certifications, reimbursing over \$191,000 to Arizona producers and handlers.

FDA Food Safety Modernization Act- Produce Safety Rule

In September 2016, the United States Food and Drug Administration (FDA) awarded the Arizona Department of Agriculture (AZDA) a five year grant/cooperative agreement to implement the Food Safety Modernization Act (FSMA) Produce Safety Rule.

Under this Cooperative Agreement, AZDA will provide statewide training/outreach for the Produce Safety Rule. The AZDA will facilitate the required Produce Safety Alliance – Produce Safety Rule Grower Training. Once training staff is hired by the AZDA, we also will provide one-on-one consultations to help farms understand and comply with the Produce Safety Rule.

The AZDA plans to begin training in the fall of 2017.

The Cooperative Agreement also covers regulatory oversight and compliance, for which the AZDA is working to gain legislative authority in FY 2018. Arizona farmers made it clear last April that they want AZDA inspectors on their farms; not FDA inspectors.

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 remainder of the division is the field staff 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 reviewing labels, ensuring company licensing or registration of products and taking 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 20 full-time employee positions as of June 30, 2017. Six of these positions are in the field.

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 just that, and how other state agencies and other states could learn from us.



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 a quarterly \$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 quarterly \$0.25 per ton fertilizer inspection fee; a \$110 per product pesticide registration; and an annual seed license fee of \$50 for dealers and \$100 for labelers. Approximately one-half of the money allocated 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 FY2017, \$1,163,137 in fees was collected for the WQARF: \$57,298 in fertilizer fees and \$1,105,839 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 2017

Total No. of Test Administered	Pass Rate	No. of Unique Testers
557	56.01%	461

The following table represents the total number of certifications, licenses, permits, & registrations issued by the Licensing Section in FY2017:

Certifications, Licenses, Permits, & Registrations issued in FY2017	
Pesticide Companies	1,453
Pesticide Products Registered	13,436
Fertilizer Companies	592
Specialty Fertilizers Registered	4607
Feed Companies	697
Seed Licenses	1575
Dairy/Milk Industry Licenses	405
Aquaculture Licenses	56
Egg & Egg Products	164
Meat Industry Licenses	241
Native Plant Permits Issued	888
Native Plant Tags	33,639
Equine Rescue	8
Equine Hauling	21
Free Sale Certificates	239
Free Sale Products Registered	2945
WPS Trainer Certificates	358
Livestock Brand Certificates	2,375
Ag- Total Licenses Issued	63,699

Pesticide Use Related Credential Summary FY2017	
Environmental Services	
Agriculture Total Licenses Issued	2,981
Pest Management	
Pest Management Total Licenses Issued	9,907

The Pest Management Division has an Internet based license renewal system – RenewEZ; which processed 91.4% of all renewals received in FY2017. All certifications and licenses expired on May 31st.

Field Work

- *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/distribute pesticides to ensure compliance with state and federal pesticide sales, manufacturing and bulk storage regulations.



Fertilizer Tonnage FY2017 (in Tons)			
Bag	Bulk	Liquid	Total
97,177	98,657	239,292	435,126
Feed Tonnage FY2017 (in Tons)			
1,729,545			

- *Restricted Use Pesticides*

Any product making a claim to control, mitigate, repel, kill etc. a pest is 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.

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. 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 enclosed spaces (greenhouses) purchasing and applying agricultural use pesticides must comply with Arizona's Worker Protection Standard (WPS). Golf courses which have nursery facilities (move plant material 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 were to go into effect January 2, 2017 and 2018. However, with the changes in administration in Washington these have been put off for an additional year. As an agency we will continue to educate on the changing regulations but not cite for anything that is not currently in place. The major changes being implemented 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 eight Pesticide Safety Train-The-Trainer Workshops in English and Spanish for new trainers and those with expired certificates. This year something new was implemented at the request of customers. A worker only TTT course was developed and presented in the Yuma area for labor contractors that only employ workers. This was received well. Overall attendance neared 200 people.

Annual Recertification & Training Courses were held across the state. Pest control advisors, certified applicators and responsible parties for pesticide sellers were able to obtain three or six hours of continuing education. Three for attending morning or afternoon only and six for attending the full day course. The courses were held: December 6th in Maricopa, December 7th in Yuma and December 15 in Safford. Courses covered the Worker Protection Standard, pollinator protection, proper documentation on form 1080's, Bees, legal pesticide applications, proper pesticide storage and the unusable Pesticide Recycling program among numerous other topics important for the safe use of pesticides.

ESD Compliance staff attended training/conferences as follows:

- AAFCO Training, Springfield, MO September 26th-29th, 2016
- CLEAR II, Austin, TX – April 3rd-6th, 2017
- April 26th-27th Desert Ag -
- CEU Roadshow, Yuma, AZ – Dec 15, 2016
- Dia Del Campasino, San Luis, AZ – Dec 3, 2016
- Southwest Ag Summit, Yuma, AZ – Feb 22-23, 2016
- AIFC in Prescott – September, 2016
- PIRT in Portland, OR – April, 2017
- CEU Roadshow, Safford, AZ – Dec 7, 2016
- CEU Roadshow, Maricopa, AZ – Dec 6, 2016

• *Groundwater Protection*

The Arizona Department of Agriculture inspection staff collected groundwater samples in Yuma, Maricopa and Graham counties in May, 2017. 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

Environmental Services Division 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 Enforcement Actions*

	Number
<i>TOTAL NUMBER OF CASES OPENED</i>	83
<i>CEASE & DESIST ORDERS ISSUED & Warnings</i>	188
Unregistered/Unlicensed	31
Quality Assurance Analysis Failures	23

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

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

- *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. The regulations and inspections help ensure the facilities are being maintained properly.

- *Pesticide Producer Establishment Inspections*

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 that indicate they control, repel or mitigate pests, 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 field staff, 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 seventh 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, goat, lamb/mutton, chicken, ginseng, peanuts, pecans and macadamia nuts. Products must bear labeling or have signs conspicuously posted, 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 22 follow-up inspections took place at businesses that previously were inspected and had some non-compliant issues and 19 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 PMD Compliance is to perform Pesticide Use Inspections (aka Use Inspections). These inspections involve monitoring an applicator applying, storing or disposing of a product. PMD believes that monitoring compliance protects the public by reducing the number of pesticide misuses. The number of Use Inspections performed for FY 2017 amounted to **974**. **The top five categories of inspections were as follows:**

1	General Pest / Public Health	575
2	Wood Destroying	249
3	Turf and Ornamental	94
4	Right of Way / Weeds	40
5	Aquatic Pest	8
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 PMD and the requirements to be licensed. **PMD compliance staff conducted 880 non-use inspections.**

I. **The top 8 categories of inspections were as follows:**

Office Inspections	490
Vehicle Inspections	186
Certified applicator treatment records	139
Child Care visits	30
School Visits	23
Health Care Inspections	7
Food Handling Establishments	3
Wood Destroying Insect Inspection Monitors	2

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 2017, PMD inspectors performed 172 Consumer Protection Monitors.**

Investigations

The Division conducted 126 inquiry investigations in FY 2017. 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 2017:

Category	Inquiries Open
Misuse	21
Unregistered applicator	3
QSD	5
Records	21
TARF	6
Unlicensed Applicator	6
Unlicensed Activity	41
WDIIR	8
No insurance	9
30 day certification violation	6

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 2017 the PMD completed 76 complaints.**

II. The categories for the complaints are as follows:

Category	Complaints Completed
Misuse	9
QSD	10
Records	11
TARF	5
Unlicensed Applicator	4
Unlicensed	25
WDIIR	7
Unregistered employee	5

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.

<u>Type of Disciplinary Action</u>	<u>Number</u>
Administrative Warnings	60
Civil Penalties	\$41,840.00
Number of cases that involved Civil Penalties	51
License Suspensions	3
License Revocations	0
Dismissals	12
Cease and Desist Orders	21

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 FY2017 compliance staff reviewed and approved 700 PMD CE applications, approving 689 and denying 11. The average amount of time it takes to approve the applications is 7.79 days.**

III. PMD provided CE classes in Phoenix, Tucson, Yuma, Prescott and Cottonwood to 588 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 4 occasions to a total of 42 attendees.

Date	ILT CLASS HOURS	ATTENDEES
11/21/16	5	4
09/01/16	6	10
06/23/17	4.0	8

Industry Outreach

In FY2017 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 1081 license holders 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:

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

Fiscal Year (FY) 2017 Impact

In FY 2017, Division inspection staff conducted 18,802 inspections of high risk commodities resulting in 9,720 pests intercepted within the state's interior with 210 identified as serious pests of concern to Arizona's agricultural and horticultural industries. 1,358 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 2,672 phytosanitary certificates were issued for domestic commodity movement. Preclearance of high-risk nursery stock for pests of concern before distribution within the State continues to be a major inspection emphasis.

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 domestic (2,672 Domestic Phytosanitary Export Certificates were issued in the state FY 2017) and international (nearly 7,000 International Phytosanitary Export Certificates were issued in Federal FY 2017 with 1,358 certificates issued by division personnel in the state FY 2017) movement of agricultural commodities.
- **VOLUNTARY NURSERY CERTIFICATION PROGRAM** - During FY 2017, 299 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, 325 certificates were issued.

• Export Enhancement

Arizona's economy benefits greatly from the division's strict maintenance of its aggressive pest detection program in maintaining producer access to foreign markets. 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

Mobile Computing Systems to Facilitate Export Certification:

- Improved responsiveness to customer needs
- Eliminated redundancies in process
- Increased capacity to issue certifications state-wide

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

Completion of Rulemaking and 5-Year Rule Review

- Completed rulemaking related to final transfer of the Arizona Department of Weights and Measures to the Arizona Department of Agriculture, which was effective July 1, 2017.
- Streamlined many of the rules in place for enforcement procedures, price posting, weighmaster, biofuels, and other regulatory requirements.
- 74 out of the 81 rules in the rulemaking reduced regulatory burden, administrative delay, or uncertainty. The rules will be effective October 2, 2017.

Focus on Underserved Inspection Types

- The division has a renewed focus on conducting inspections that have not been performed on a routine schedule to better serve and protect consumers in the market place. These inspections include packaging, high flow diesel, propane, and large scales.
- We conducted inspections on 2,503 of these device types during FY17.

Continued 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. During this fiscal year 97 skimming devices were found by or reported to the Division.

- Conducted a statewide survey of all dispensers while educating retail owner/operators about skimming devices.
- Increased targeted surveys to inspect for skimming devices in high-risk areas.
- Continued communications between law enforcement, the banking industry, gasoline retailers and the general public when skimmers were found.
- Assisted AZPOST with a training video for law enforcement.
- We have maintained statewide information regarding skimmers identified in Arizona.



Successful 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. To date we have:

- Successfully overseen the removal of stage II equipment at slightly over half of the sites without issue.
- All scheduling, reporting and inspections reports are conducted online which has proven to be most efficient.

Performance Numbers Fiscal Year 2017

Overview:	Detailed Highlights:
Inspections conducted: 10,384	Total Devices Tested: 33,253
Number of Devices Licensed: 123,584	Gas Pump Tests Conducted: 20,277
Consumer Complaint Inspections: 904	Scales Tested: 5,088
Civil Penalties Issued: 292	Price Posting/UPC Inspections: 3,008
Civil Penalty Amount Assessed: \$97,050	Fuel Quality Samples Analyzed: 1,834
	Dispenser checked for skimmers: 3,147
	Skimmers Reported/Found: 97
	Overall Site Compliance Rate: 91% Pass