

Plant Industry



Clair A. Allen
Director

The Division of Plant Industry is responsible for ensuring consumers of disease free and pest free plants, grains, seeds, as well as properly labeled agricultural commodities, and the safe application of pesticides and farm chemicals.

Entomological Activities

The Utah Department of Agriculture and Food currently administers nine insect and plant quarantines, which require inspection and enforcement by the State Entomologist. Effective enforcement demands cooperation with federal agencies and regulatory officials of other states and countries. Quarantines currently in effect are: European Corn Borer, Gypsy Moth, Apple Maggot, Plum Curculio, Cereal Leaf Beetle, Pine Shoot Beetle, Japanese Beetle, Mint Wilt and Karnal Bunt.

During 2006, there were approximately 1,173 State and Federal Phytosanitary Certificates issued under the direction of the State Entomologist. These certificates allow Utah agriculture to ship plants and plant products to other states and foreign countries. The State Entomologist also responded to more than 300 public requests for professional advice and assistance. Such assistance includes insect identification, news releases, control recommendations and participation in various education meetings and workshops.

The State Entomologist administers the Utah Bee Inspection Act (Title 4, Chapter 11), the Insect Infestation Emergency Control Act, and various entomological services under authority of Title 4, Chapter 2. Major functions performed during 2006 are summarized below:

Apple Maggot and Cherry Fruit Fly

The Apple Maggot survey and detection program in Utah requires the efforts of the State Entomologist, one program supervisor, three field scouts and necessary secretarial help. The program was implemented to provide for our continued participation in export markets. In 2006, six hundred (600), traps were used in the adult survey. Since the programs beginning in 1985, property owners are contacted annually on orchard spray management techniques and removal of uncared for and abandoned orchards. Tree removal during 2006 exceeded 2000 trees in abandoned orchards. No Apple Maggots or Cherry Fruit Flies have been found in commercial orchards for severally years.

Bee Inspection

The Utah Bee Inspection Act provides for inspection of all apiaries annually in order to detect and prevent the spread of infectious bee diseases. Without a thorough inspection program, highly contagious diseases could spread rapidly resulting in serious losses to the bee industry in Utah, with corresponding losses to fruit and seed crop producers who are dependant on

bees for pollination. During 2006, thirteen thousand (13,000) colonies of bees were inspected, with the incidence of disease below 2.5 percent.

African Honey Bee (AHB)

A survey and detection program for African Honey Bee has been in effect for the southern border areas of Utah since 1994. UDAF has put into action a survey and detection program in the southern portion of the state consisting of 125 detection traps. There were no confirmed detections of AHB in Utah during 2006. Early detection, supported with information and education, will be a major defense mechanism against this devastating and alarming insect. Considerable education and public awareness activity has occurred since the AHB was discovered in Mesquite, Nevada in the summer of 1999. AHB have not been reported in Utah to date.

Cereal Leaf Beetle (CLB)

The Cereal Leaf Beetle was discovered in Morgan County in 1984. It has since been found in seventeen of Utah's agricultural counties, including the nine northern most counties (Box Elder, Cache, Davis, Juab, Morgan, Rich, Utah, Wasatch and Weber). CLB present and absent in all the same counties in 2007 as 2006, with one exception. The beetle was found in Duchesne County in 2006, but not in 2007. Because Cereal Leaf Beetle can cause a reduction in small grain production up to 75 percent, and domestic grain markets require insect free shipments, UDAF, in cooperation with Utah State University, conducts an annual survey and detection program for this insect. A cooperative in sectary program with USU has provided beneficial parasitic wasps that prey on Cereal Leaf Beetle. These beneficial parasites have now spread to all northern Utah counties helping to reduce populations significantly. Additional cooperative investigations by Utah State University and the UDAF into the biology and life expectancy of Cereal Leaf Beetle in compressed hay bales may one day allow shipments of hay from infested areas of the state during certain times of the year.

Gypsy Moth (GM)

Gypsy Moths were first found in Salt Lake City in the summer of 1988. Since that time UDAF has been the lead agency in the administration of a major bio-control program that has had a 97% success rate. Moth catches have been reduced from 2,274 in 1989 to none (1) in 2006. The major benefits of this program are: Cost effectiveness, Public nuisance reduction, Forest and natural resource protection, and Watershed protection. In 2006, 2,917 GM traps were placed in 29 counties.

Eradication efforts continue to show significant progress and trapping programs will remain vigorous.

Cricket/Grasshopper

Information from the 2006 Fall Rangeland Insect Survey indicates that we may have 335,600 acres infested with Mormon Crickets. Grasshopper numbers were not estimated. The greatest infestation occurred in Box Elder County. The Vernal area has a small Mormon cricket infestation may be baited to control the infestation. The aerial application of Dimilin in Grouse Creek area was approximately 33,000 acres which protected over 100,000 acres from the invaders. Private grasshopper control contracts were available for less than 1,000 acres. The numbers of acres infested are substantially lower than 769,500 and 2,868,500 as reported in 2004. UDAF and APHIS agree that numbers are down due to the control and treatment programs over the last three years. Large populations of these voracious insects in 1998, 1999, 2000, 2001, 2002, 2003 and 2004 prompted the Governors Declaration of Agricultural Disaster. Federal and State funds provided some relief during 2004, but there were still private farmers, ranchers and homeowners left to use their own resources to control the infestation.

For the past five years, Disaster Declarations by the Governor has focused resources, administered through Plant Industry, to provide relief from major infestations of Mormon Crickets (largest since 1930's) and grasshoppers. This is the sixth year of extremely heavy populations and is proving to be another extremely large year (2007) again for Mormon Crickets and grasshoppers. The resources from Congress to control infestations on federal lands has increased to \$1,000,000 and Legislative funding provided an additional \$200,000 for control on infested state and private lands. An additional \$6.7 million dollar grant has been awarded to Utah for control of Mormon Crickets and is available until used.

European Corn Borer (ECB)

Utah has a quarantine (R68-10) in place for products that could harbor the ECB in order to keep this damaging insect from entering the state. A state trapping program is annually conducted in major corn producing areas for this serious pest. In 2006, 147 traps were placed in eight counties, with no detections of ECB.

Red Imported Fire Ant (RIFA)

The Utah Department of Agriculture and Food is approaching the RIFA with survey and detection trapping, quarantine enforcements, port of entry inspection and public education. The Utah RIFA surveys indicate that Washington County (the mostly likely area to get RIFA) is free from RIFA population.

West Nile Virus (WNV)

West Nile Virus (WNV), a disease transmitted by mosquitoes, first appeared in the United States in New York City in 1999. Over the next several years, the disease was found at epidemic levels progressing east and south across the United States. In 2003, West Nile Virus was first detected in the State of Utah. In 2003, a single human case was diagnosed; in 2004 there were 11 human cases, in 2005, 52 human cases and in 2006, 158 human cases and five deaths occurred in Utah. \$500,000 was appropriated by the 2004 legislature for control of mosquitoes and has been awarded

to counties, Cooperative Mosquito Control Areas and Mosquito Abatement District's to control mosquitoes, the main vector of WNV. In 2005 and 2006, \$329,300 was given to various agencies for efforts to reduce the effect of WNV in the state. In Utah, two principle vectors of WNV are: 1) *Culex pipiens* (the house mosquito) and 2) *Culex tarsalis* (the marsh mosquito). The major activity period for these disease vectors is from dusk until dawn. Daytime activity is almost non-existent. Birds are the natural hosts of the disease with humans and horses serving as secondary hosts. The majority of people infected with WNV never develop symptoms. However, a small percentage may develop symptoms such as fever, headache, body aches, etc. A more serious form of the disease can occur when the virus infects the central nervous system.

Japanese Beetle (JB)

Utah has a survey and detection program in place to eradicate and/or deter the establishment of JB insects into the state. In 2006, a total of 681 traps were set in the following counties: Box Elder, Cache, Carbon, Emery, Grand, Salt Lake, Rich, San Juan, Sevier, Uintah, Utah, and Wayne. The first Japanese beetle was found in Utah County in July 2006, there were 675 total caught in the 100 traps.

In 2007, UDAF established the Japanese beetle Decision and Action Committee and declared a state of emergency according to the Insect infestation Act. The committee approved UDAF eradication plans for the Japanese beetle. UDAF has placed 3,000 traps statewide; 1,200 in Utah County and 480 in the treatment area. Public hearing meetings were held to inform the public and solicit their help in eradicating the Japanese beetles. The spray project started in June, with one turf application on 480 acres of Orem residential area. Three foliar treatments were applied on 250 acres during July. The two insecticides products used were Merit 2F (imidacloprid) and Tempo Ultra SC (beta cyfluthrin) to soil, turf, planting beds, and trees. These products are commonly used by lawn care companies to attack the immature and adult beetles feeding on plants. This treatment program will occur at no cost to homeowners. The trapping is considered a control method. There were over 1,900 beetles caught, with 1,938 in the foliar treatment area, 11 beetles were trapped in the turf treatment area (all singles); 29 beetles caught in 10 traps adjacent to the treatment area. 85% of the captured beetles were found in 60 traps. The total cost of the spray project was paid by the department. There were no Japanese beetles reported outside of the Orem City area in Utah County.

Sudden Oak Death (SOD)

A nationwide quarantine and survey was implemented in 2004 by USDA – APHIS due the outbreak of SOD and shipments of nursery stock to Utah and 39 other states. Quarantine actions were taken at 28 local nurseries including sampling and testing in 2004. In 2006, over 100 Utah nurseries were surveyed for SOD, 68 host plants were inspected and no positive plants were identified. In 2007, only SOD trace forwards plant materials (plant materials grown in positive SOD nursery) were inspected at 10 Utah nurseries. No positive findings.

Fertilizer Program

Administration of the Utah Commercial Fertilizer Act (Title 4, Chapter 13) regulates the registration, distribution, sale, use, and storage of fertilizer products. UDAF regulates and licenses fertilizer blenders and monitors the applicators that spray or apply fertilizer and take samples for analysis.

Major functions performed in this program in 2006.

Number fertilizer manufacturers/registrants	269
Number of products received and registered	2,596
Number of products registered because of investigations	150
Number of fertilizers sampled, collected, and analyzed	180
Number of tests ran or analyzed	681
Tonnage sales in Utah	140,356
Number of samples that failed to meet guarantee	6
Guarantee analysis corrected	6
Number of inspection visits to establishments	585
Number of violations of the fertilizer Act	6
Number of blenders licensed	44

Pesticide Disposal Program

UDAF plans to sponsor more Unwanted Pesticide Disposal Program in the future depending on the Agriculture community needs. Protecting the environment is one of our primary goals. The total amount collected and disposed over the past ten collections is 152,601 pounds, or 76 tons, from 1993 through 2006.

Pesticide Product Registration

Number of pesticide manufacturers or registrants:	936
Number of pesticide products registered:	10,113
New products registered as a result of investigation:	75
Number of violations of the Pesticide Act	35
Registration requests by field representatives:	54

Nursery Inspection Program

Number of licenses issued to handlers of Nursery stock	728
Number of Nursery Inspections conducted	948
Number of violations of the Nursery Act	35

USDA Private Pesticide Applicator

Restricted Use Record Survey Program

Number private applicators records surveyed	75
Percent private applicators using RUP products	100%
Percentage of elements recorded as required	100%
Percentage of private applicators without records	0

Pesticide Enforcement Programs

cooperative grant agreement with EPA

UDAF administers the Utah Pesticide Control Act, which regulates the registration and use of pesticides in Utah. This Act authorizes pesticide registration requirements and the pesticide applicator certification program. UDAF is the lead state agency for pesticide use enforcement under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). UDAF administers sections of FIFRA under which programs are developed and implemented by cooperative grant agreements with the Environmental Protection Agency (EPA). These programs include the Worker Protection Program, Endangered Species Program,

Ground Water/Pesticide Protection Program, Certification Program, and Pesticide Enforcement.

Worker Protection Program

This program provides general training, worker and handler pesticide safety training, "train the trainer" program, training verification, outreach and communication efforts, reporting and tracking, and performance review actions. UDAF has adopted the national Worker Protection Standards (WPS) Verification Program and distributes WPS Worker and Handler Verification cards to qualified WPS trainers and performs WPS training as necessary.

Endangered Species Pesticide Program

Utah has developed an Endangered Species Pesticide Plan. This plan allows the state to provide protection for federally listed species from pesticide exposure while tailoring program requirements to local conditions and the needs of pesticide users. Utah's plan focuses on the use of pesticides as they relate to the protection of threatened and endangered species on private agricultural land and lands owned and managed by state agencies. UDAF is the lead state authority responsible for administering the plan. Through an interagency review committee, special use permits or landowner agreements can be established to allow for the continued use of certain restricted pesticides for those locations that contain threatened and endangered species.

Ground Water/Pesticide Protection Program

EPA is working with UDAF to establish a Ground Water State Management Plan as a new regulatory mechanism under FIFRA to prevent pesticide contamination of the nation's ground water resources. The Utah Ground Water/Pesticide State Management Plan is a state program that has been developed through cooperative efforts of UDAF with various federal, state, and local resource agencies. The plan includes an assessment of risks posed to the state's ground water by a pesticide and a description of specific actions the state will take to protect ground water resources from potentially harmful effects of pesticides. Annually over 200 wells are monitored for pesticide residue and other containments.

Certification Program

UDAF has entered into a cooperative agreement with EPA to undertake the following as part of the department's Pesticide Certification program: maintaining state certification programs, state coordination with Utah State University Extension Service, state evaluation and participation in training programs, conduct certification activities, maintain records for certified pesticide applicators, and monitor certification program efforts, UDAF develops and prepares pesticide applicator certification manuals and examinations as part of state licensing requirements.

Pesticide Enforcement Program

UDAF enforcement activities include the following: cancellation and suspension of pesticide products, general compliance monitoring, tracking, sample collection and analysis, enforcement response policy, ground water and endangered

species pesticide enforcement activities, and FIFRA Section 19 (f) enforcement actions.

Pesticide Inspections and Assignments

Number of inspections of pesticides sales establishments:	58
Number of physical pesticide samples collected:	97
Number of investigations of pesticide uses:	108
Number of Applicators & dealers record audits	58
Number of violations:	32
Number of pesticide applicator training sessions:	30
Applicators certified Commercial,	
Non-Commercial and private:	5,109
Number of pesticide dealers licensed:	92

Seed Inspection and Testing

Administration of the Utah Seed Act (Title 4, Chapter 16) involves the inspection and testing of seeds offered for sale in Utah. Work performed in FY 2006-2007 is summarized below:

Number of seed samples tested:	2,280
Number of violations determined:	87
Percent of violations	3.6%

Seed Testing and Seed Law Enforcement

The seed analysts and seed laboratory technicians conduct tests on seed samples submitted by agricultural inspectors, seed companies, and other interested parties. Most common tests include percent germination, purity, and presence of noxious weeds; although a number of other tests are performed upon request. Inspectors monitor the seed trade by collecting representative samples for testing and by checking for proper labeling of all seed offered for sale and for the presence of noxious weeds and other undesirable factors.

Noxious Weed Control Program

The State Weed Specialist administers the Utah Noxious Weed Control act (Title 4, Chapter 17) and coordinates and monitors Weed Control Programs throughout the state. The Twelve agricultural field representatives located throughout the state made approximately 1,246 visits and inspections. This includes visits and or direct contact with the agencies listed below:

1. Retail Establishments
2. Weed Supervisors and other County Officials
3. State Agencies
4. Federal Agencies
5. Utility Companies
6. Private Landowners
7. Hay and Straw Certification

Cooperative Weed Management

During the past several years, UDAF has been working diligently with local land management agencies and the counties to encourage the development of Cooperative Weed Management Areas (CWMA's). Weed management areas are designed to bring people together to form partnerships which control noxious or invasive weed species. The CWMA's break down some of the traditional barriers that have existed for many years. The County Weed Departments and the local managers of State and Federal

lands, along with private land owners are now able to cooperate and collaborate on similar noxious weed issues. They share resources and help with weed control problems on lands that they do not administer. We now have 25 organized Cooperative Weed Management areas in Utah.

Control of Noxious Weeds

1. The Division Weed Specialist coordinates weed control activities among the county weed organizations and the agricultural field representatives.
2. Surveys of serious weed infestations are conducted and control programs are developed through the county weed supervisors, county weed boards, and various landowning agencies.
3. The weed specialist and the inspectors work continually with extension and research personnel in encouraging the use of the most effective methods to control the more serious weeds.
4. Noxious Weed Free Hay Certificates.

Activities in Hay and Straw Certification

Certification of hay and straw to be free from noxious weeds has become an important part of allowing these materials to be fed or utilized on public lands throughout Utah and other western states. Weed free certification is now required for all hay and straw used on public land.

Commercial Feed Program

Administration of the Utah Commercial Feed Act, (Title 4, Chapter 12) involves inspection, registration, and sampling of commercial feed products. Activities performed during this program in 2006 are summarized below:

Number of feed manufacturers contacted:	538
Number of feed products registered:	7,572
Number of analysis requested of chem. Lab:	1,201
Number of feed samples collected and tested:	430
Number of violations:	31
Number of custom formula Feed mixer;	38

Grain Inspection

The Federal Grain Inspection Service provides, under authority of Title 4, Chapter 2, Section 2, and under designated authority, grain inspection services. Following is a summary of work performed during the past fiscal year under dedicated credit provisions, with expenses paid by revenue received for grading services:

Number of samples tendered:	11,639
Number of miscellaneous tests conducted:	21,761
Total number of activities performed	33,400

NOTE: Volume of work is influenced each year by a number of factors, among which are weather conditions, governmental crop programs, and marketing situations.