

## DEPARTMENT OF PESTICIDE REGULATION

### I. EXECUTIVE SUMMARY

The California Department of Pesticide Regulation's (DPR's) mission is to protect human health and the environment by regulating pesticide sales and use and by fostering reduced-risk pest management. Since its creation in 1991, DPR has made significant strides to:

- Enhance worker and environmental protections
- Strengthen uniformity of enforcement in the field while maintaining local discretion and flexibility
- Streamline the regulatory process to encourage registration of safer materials
- Encourage the development and use of reduced-risk pest management practices
- Use existing and new statutory requirements to ensure the completion of an up-to-date toxicological database for all pesticide active ingredients

DPR's regulatory control begins with the evaluation and registration of pesticide products and continues through statewide licensing of commercial pesticide applicators, dealers and consultants; environmental monitoring; residue testing of fresh produce; and local enforcement by County Agricultural Commissioners (CACs).

About 340 DPR employees, including scientists from many disciplines, carry out California's pesticide regulatory program. In addition, approximately 280 full-time biologists dedicated to pesticide use enforcement work for CACs who are responsible for local pesticide enforcement.

DPR's annual budget is approximately \$73 million of which about \$19 million funds local pesticide enforcement activities in the counties.

**Note:** Current-year statistics in this report are preliminary in nature due to lag times in reporting and compiling data. The prior year statistics have been updated and therefore may not match the statistics as reported in previous editions of this report.

#### Program Structure

DPR uses a "function-based" approach to better manage the performance and costs of its programs. Enforcement of statutory and regulatory requirements within this framework allows DPR to determine compliance with these requirements and to assess their effectiveness relative to costs, workload outputs, and impacts on human health and the environment. Elements of DPR's planning and management system include:

- Cal/EPA Strategic Vision that sets forth the Agency's vision and mission, core values, and goals and objectives.
- DPR's Strategic Plan that provides department-specific strategies, goals and objectives.
- DPR's Operational Plan that defines goals and activities that it plans to carry out during the fiscal year.
- Performance measures that include DPR's outputs and environmental indicators. They are used to assess the effectiveness of DPR's program.
- Function-based accounting that summarizes spending by function category.

Key DPR workload outputs are compiled annually by fiscal year to track the number of products and services that DPR produces, i.e., the number of licenses issued or groundwater samples collected. These outputs are categorized by DPR’s program functions. The above-referenced materials are available on DPR’s website at [www.cdpr.ca.gov/dept/planning/performance/index.htm](http://www.cdpr.ca.gov/dept/planning/performance/index.htm).

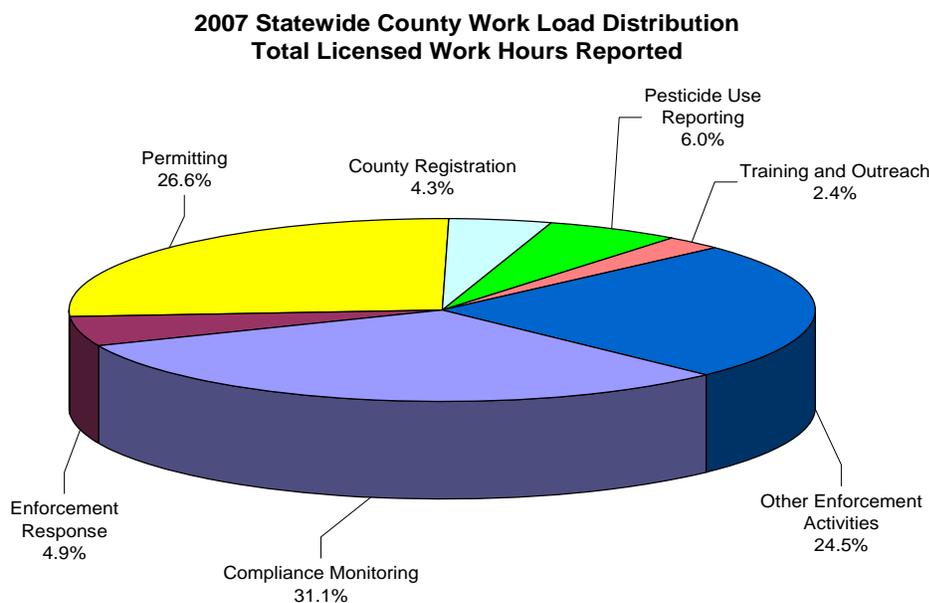
Since 2002, DPR has implemented several new programs to strengthen its enforcement programs to better protect California’s workers and the public, ensure a safe food supply, and a healthy environment. At the same time, these programs strive to create an environment in which agriculture can be sustained for future generations. Our constituents (growers, pesticide applicators, worker and environmental advocacy groups, etc.) ask for and expect fair, consistent, and timely enforcement of pesticide use laws and regulations by DPR and the CACs.

When taken together, the following new programs and approach to program planning and evaluation will lead to improved compliance with pesticide and environmental laws and regulations.

DPR and the CACs spent considerable time evaluating their programs and identifying areas for improvement. In late 2004, DPR developed program guidance identifying three core program priorities to better target county enforcement efforts:

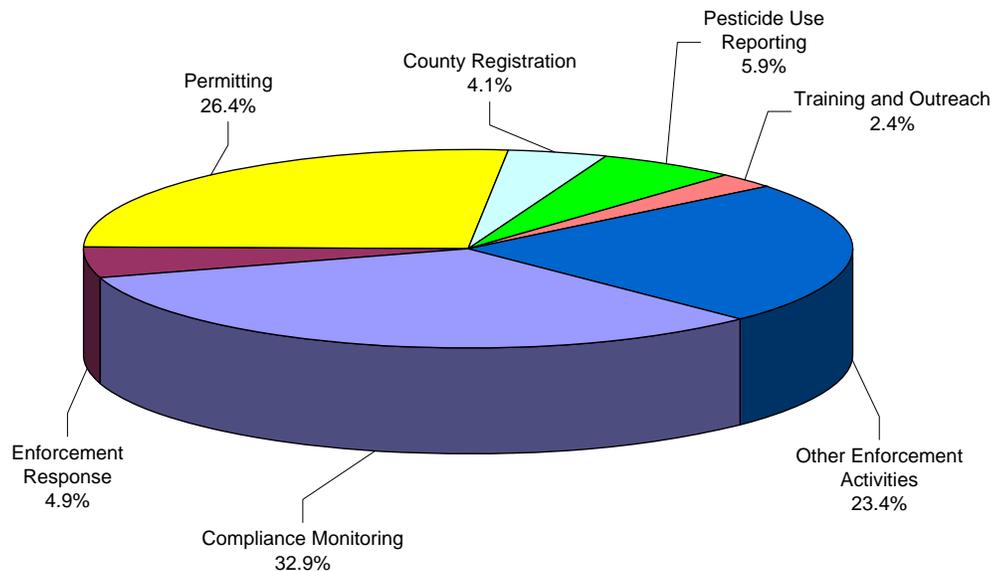
- Restricted material permitting
- Compliance monitoring through inspections and investigations
- Enforcement response to violations

The following charts summarize distribution of CAC work hours by licensed/professional staff in 2007 and 2008. “Other enforcement activities” includes general management and supervisory time across all of the workload categories. Conservatively, inclusive of management and supervision, the CACs consistently expend 75 percent of their work hours in the three core enforcement program areas.



Source: 2007 Calendar Year Query of the Pesticide Regulatory Activities Monthly Report Database (5/09)

**2008 Statewide County Work Load Distribution  
Total Licensed Work Hours Reported**



Source: 2008 Calendar Year Query of the Pesticide Regulatory Activities Monthly Report Database (5/09)

In 2002, Assembly Bill (AB) 947 became law augmenting civil penalty authority granted to DPR and the CACs by significantly increasing the fine levels from \$1,000 to \$5,000 per violation. In 2005, Senate Bill (SB) 391 became law allowing DPR and the CACs to levy a penalty for each person exposed as a result of a violation.

Also in 2005, DPR and the CACs jointly developed the Enforcement Response Policy that laid out a standardized approach to classifying violations and taking appropriate enforcement actions. This policy was formally adopted into regulations in late 2006 and is more fully described below. DPR maintains two databases that are used to track (1) county and DPR inspections and compliance rates, and (2) final enforcement actions taken by the counties.

California's pesticide regulatory program is considered by many to be a model program. DPR's comprehensive system used to track pesticide use has been at the forefront both nationally and internationally. Since 1990, growers and applicators must report all agricultural, structural, landscape maintenance, and other nonagricultural pest control applications to the CACs. DPR compiles and makes available statewide pesticide use data on an annual basis. More information about this unique program is available on DPR's website at <http://www.cdpr.ca.gov/docs/pur/purmain.htm>.

DPR's Worker Health and Safety Branch has been collecting and analyzing pesticide illness data for decades. In the pesticide use enforcement arena, DPR uses inspection reports to document compliance rates and the CACs submit annual reports to DPR that document their workload activities and hours, and enforcement. DPR's Environmental Monitoring Branch collects and analyzes the results of air and ground water monitoring projects.

As noted in the 2007 report, DPR has not integrated and analyzed data from these various sources to fully assess the impacts of its programs to improve environmental and human health. During 2008, DPR's Enforcement Branch continued its efforts to create a multi-disciplinary team with highly specialized analytical, statistical, and research skills in the areas of environmental and human health related to the impacts of pesticide use. The Enforcement Branch focused on developing and training staff in sound scientific principals, investigative procedures and techniques, and regulatory compliance. DPR, working with the CACs and the United States Environmental Protection Agency (USEPA), met to continue discussions and identify program improvements critical to the development of an integrated approach to analyzing compliance.

### **A) 2008 Major Program Highlights**

Food Safety: In September 2008, a new law began requiring country-of-origin labels on all fresh produce commercially sold in the United States. California growers strongly supported the national law since they believe our state's strict pesticide laws encourage more consumer confidence.

DPR has long been a major player in food safety issues. Our fresh produce residue monitoring program made national headlines in 2007 when we detected illegal residues of aldicarb sulfoxide in ginger imported from China. DPR findings led the U.S. Food and Drug Administration to issue a national recall and spotlighted pesticide residue issues on produce imports.

DPR monitoring is designed to assure that all fresh produce – foreign or domestic – do not contain illegal pesticide residues. In 2007, almost 99 percent of all samples had no illegal residues. When certain commodities from particular countries have shown a higher proportion of residue problems, we subject them to a higher level of scrutiny. For example, such scrutiny resulted in findings of illegal pesticides on Guatemalan snow peas in 2006 and 2007, and DPR acted to take contaminated lots of snow peas off the market.

The Guatemalan problem provided an opportunity for a pro-active, long-term solution that could apply to other recurring residue detections. Late in 2008, DPR's Enforcement Branch contacted a federally supported research team, an agency within the United Nations, and a Guatemalan export association to explain our concerns about snow pea residues. This group helped identify the originating farms and encouraged Guatemalan officials to work with their growers on alternatives that could benefit both their environment and economy. DPR believes such a cooperative approach could serve everyone's best interests – from faraway fieldworkers to California consumers.

Enforcement Response Regulations (ERR): Consistent statewide enforcement of California's environmental laws is paramount for the protection of California's people, property, and the environment. However, local program administration naturally can result in variable enforcement decisions and responses. After finding inconsistent enforcement of environmental protection laws and regulations by CACs, DPR and the California Agricultural Commissioners and Sealers Association (CACASA) worked together to develop and adopt as guidelines a 2005 Enforcement Response Policy.

In 2006, Governor Schwarzenegger directed the Department to promulgate the policy into regulation. The ERR strengthens environmental enforcement and improves statewide consistency of enforcement responses used by CACs when taking action for pesticide violations. The ERR creates a violation classification system and enforcement response procedure that substantially contribute to uniform enforcement responses by CACs across the state.. The regulations became effective in November 2006 with full implementation during 2007.

In 2008, DPR began internal discussions with a subcommittee of the CACs and the Office of Environmental Health Hazard Assessment to improve the regulations related to CAC enforcement response and civil penalty actions by commissioners (Title 3, California Code of Regulations, sections 6128 and 6130). DPR does not anticipate placing regulatory amendments in this area on its rulemaking calendar before 2011 because of other higher priority, court-ordered, regulation packages in the queue. However, DPR plans public workshops for 2009 to solicit informal input from other stakeholders including growers, applicators, and worker and environmental advocacy organizations. The purpose of the workshops is to bring all perspectives to the table so that all parties gain a better understanding of the issues and concerns.

Volatile Organic Compounds (VOC) and Field Fumigants: New regulations to limit VOC emissions from pesticides took effect on January 25, 2008. The regulations reduce VOC emissions in five non-attainment areas (NAAs) that do not meet federal air quality standards for ozone by limiting fumigant application methods, require a cap and allowance system in the Ventura NAA to force emission reductions, and set up a back-up allowance system in the other areas triggered if application restrictions do not result in targeted reductions. Growers in the Ventura (NAA) submitted requests to apply VOC pesticides to the Ventura CAC in 2008 and 2009 that were forwarded to DPR staff scientists who reviewed and analyzed those requests and issued proportionately reduced allowances to meet DPR's obligations in the State Implementation Plan adopted pursuant to the Federal Clean Air Act. The Ventura CAC, working with their growers, tracked, and monitored the use of lower-emitting application methods and practices required by the regulations. In 2008, this VOC allowance process was adjusted mid-way through the year when DPR prevailed in an appeal of a court decision and was allowed to proceed with a five-year phase-in to reach the 20% reduction in VOC use in the Ventura NAA. This approach avoids economic disruption by allowing the reduction goal in Ventura to be reached gradually over four years.

During 2008, growers in all five NAAs (Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, and Ventura) were required by the regulations to report the specific field fumigation method, along with the pounds of fumigant used, the specific field location, and date of application directly to DPR. This information, along with other pesticide use data for non-fumigant VOC pesticide applications, allows DPR to compute the total 2008 emissions for each area. The results determine if a cap and allowance system is necessary for the specific NAA.

More detailed information about DPR's program and ongoing efforts to improve air quality in the state by controlling the use of smog-producing pesticides is available on the DPR website at <http://www.cdpr.ca.gov/docs/emon/airinit/airmenu.htm>.

Pesticide Use Enforcement Program Standards Compendium: In the past, DPR exercised its mandate over pesticide use enforcement through policy directives, interpretations, recommendations, and expectations generally communicated in "CAC Enforcement Letters." As part of DPR's continuous evaluation of its program, DPR has determined that this is not a user-friendly or efficient system for providing guidance to the CACs. The Department is compiling and updating relevant pesticide use enforcement directives, policies, interpretations, recommendations, and expectations into a set of eight subject matter volumes called the Pesticide Use Enforcement Program Standards Compendium. The Compendium has become the pesticide use enforcement program standard operating procedure. The Compendium, when fully completed, will be the program standards against which county programs are evaluated. The contents of each volume supersede any position or direction on that subject contained in previous CAC Letters or earlier manuals and can be supplemented and updated in the future. This is a complex on-going project drawing on all the Department's program areas.

During 2008, DPR completed and released Volume 4 (Inspection Procedures). The Enforcement Branch developed and rolled out training to CACs and their field staff in late 2008 at 11 locations statewide. As noted elsewhere in this report, the CACs conduct approximately 18,000-20,000 inspections annually. These inspections are the major tool for measuring compliance with pesticide laws and regulations. The primary function of the Inspection Procedures manual and training is to educate both DPR and county staff on how to evaluate agricultural practices in the field for compliance in a thorough, consistent, and fair manner on a statewide basis.

Additionally, progress has been made on Volume 6 (Enforcement Guidelines), Volume 7 (Hearings Sourcebook), and Volume 8 (Guidelines for Interpreting Pesticide Laws, Regulations, and Labeling). DPR anticipates completion of these volumes during 2009.

### **B) What the Reported Data Tells Us**

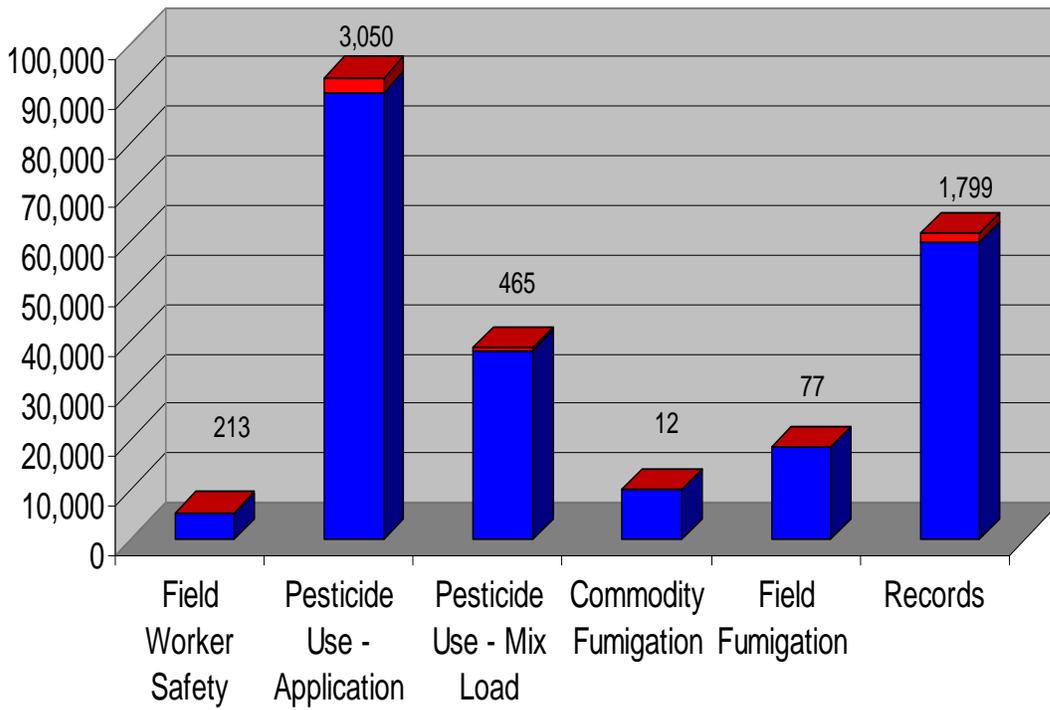
DPR collects significant amounts of data on both its activities, as well as those of the CACs and their staffs. The two enforcement related data sources include:

The Inspection Tracking database collects information on approximately 18,000 inspections conducted by the counties in both agricultural and non-agricultural (including structural) pesticide use settings and compliance rates with their respective laws and regulations. Information in this database includes the number and type of inspections, the sections of laws and regulations that were the subject of the inspections, and the compliance rates for each item.

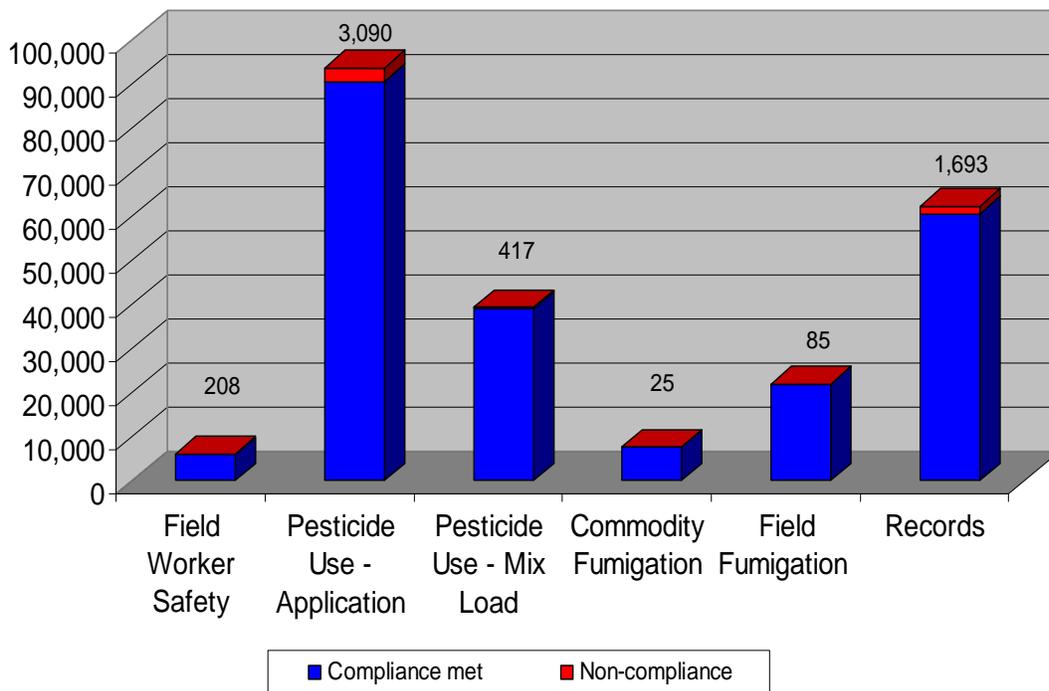
The following charts display a graphic representation of compliance rates found during agricultural and structural pesticide use inspections conducted by the CACs in 2007 and 2008. "Elements evaluated" represents the number of times a particular category of mandated human health and environmental statute or regulation is inspected and evaluated for compliance with California laws and regulations. The numbers above the blue bars represent violations found.

The most common violations across all agricultural inspections and all structural inspections are also summarized for 2007 and 2008.

2007 Agricultural Inspections - Total Elements Evaluated For Compliance



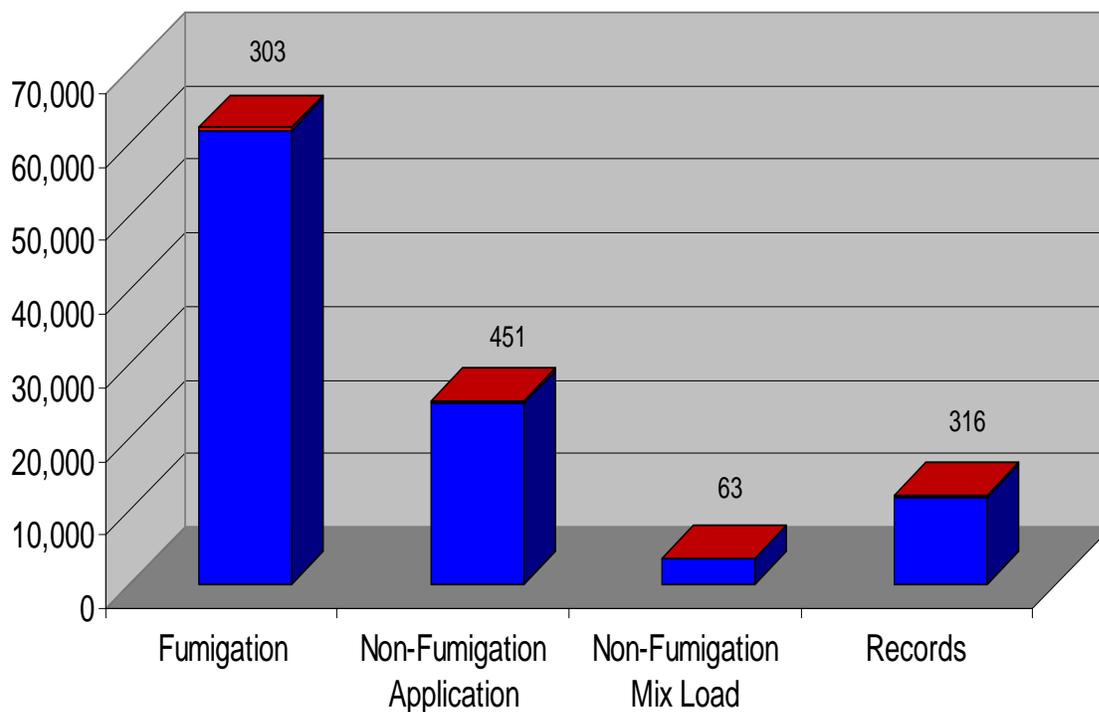
2008 Agricultural Inspections - Total Elements Evaluated For Compliance



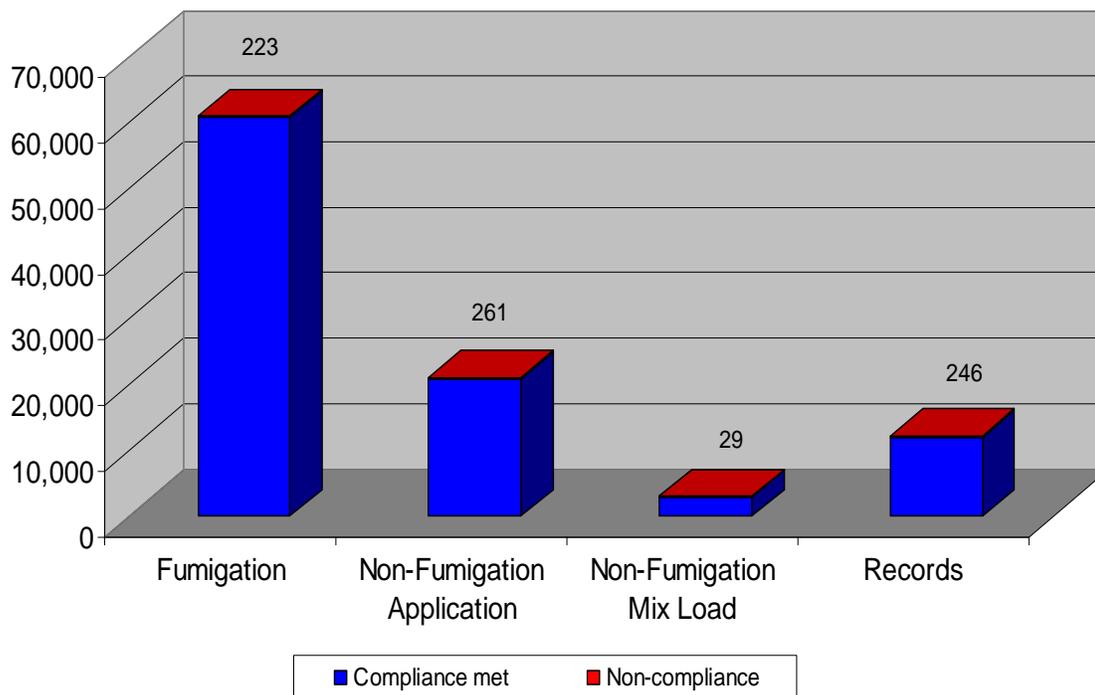
Most Common Violations – All Agricultural Inspections

Elements Evaluated	Number of Violations	
	2007	2008
Personal Protective Equipment	688	662
Handler Training	605	617
Labeling - Permit Conditions	587	631
Emergency Medical Care/Handler	458	430
Handler Decontamination Facilities	357	318
PCB/Equip Registered	326	349
Service Container Labeling	292	300
Availability of Labeling	254	280
Hazard Communication - Fieldworkers	153	155
Equipment Identification	144	132
Hazard Communication for Handlers	134	124
Pesticide Use Reports	115	110
Pesticide Use Records	108	125
Container Requirements	103	113

2007 Structural Inspections – Total Elements Evaluated For Compliance



## 2008 Structural Inspections – Total Elements Evaluated For Compliance



## Most Common Violations – All Structural Inspections

Elements Evaluated	Number of Violations	
	2007	2008
Personal Protective Equipment	198	123
Labeling - Permit Conditions	174	95
Emergency Medical Care/Handler	108	63
Service Container Labeling	83	61
Handler Training	80	63
Written Notice to Occupant	47	60
General Fumigation Safe-Use	44	29
Availability of Labeling	35	19
General Standards of Care	34	29
Container Control	32	10
Annual Notification Submitted	27	32
Hazard Communication for Handlers	22	13
Standards & Records	19	28
Pesticide Use Reports	19	13
Fumigation of Enclosed Spaces	15	10

The Enforcement tracking system collects information on the enforcement actions taken by the counties and includes the sections of laws and regulations violated and the fine amounts assessed. Information in this database includes the person or firm cited, date of violation(s), section(s) violated, type of enforcement action taken, pesticide(s) involved, date of action, date case closed, proposed fine(s), and final fine(s). This database is useful in determining repeat violators within a county and to determine if there are regional patterns for specific individuals or businesses.

### **C) How DPR Uses This Information**

Currently, the data provide basic information used in the development and assessment of (a) DPR's annual work plan and reports to USEPA and (b) county pesticide enforcement work plans and evaluations. The Enforcement Branch determines and sets performance goals in its operational planning process based on an analysis of the previous year's data. Evaluation of data may be used to modify or change performance goals for both DPR and the counties.

The county pesticide regulatory activity workload data are used as one basis for funding a portion of county pesticide activities. (Other funding sources for county pesticide enforcement programs include county general funds and unclaimed gas tax.) The data are also used to measure a county's annual performance (i.e., did it meet the workload goals stated in its annual work plan).

Managers and staff at DPR review inspection and enforcement data to assess the strengths and weaknesses of our program. The data measure the effectiveness of new policies and/or procedures. A recent example is the new enforcement response regulations. DPR and the CACs are actively reviewing enforcement metrics, inspection data, and actions taken to gauge the effectiveness of the regulations to establish a higher uniform level of enforcement and impact on compliance and recidivism. This review will also assess the impact of the regulations on county workload. It is anticipated that changes to one or more of the above data systems will be necessary to capture changing workload and performance measures.

During the second quarter of 2008, DPR provided USEPA with four years of inspection data including a summary of the numbers and types of non-compliances found and the enforcement actions taken during the same period. USEPA is undertaking an analysis of this data to begin an initial assessment of the impacts and effectiveness of the enforcement response regulations relating to worker protection.

The Enforcement Branch collects and analyzes data available through DPR and other sources for its suitability and restrictions for developing enforcement metrics on a statewide, regional, and local basis. Information and analyses are shared throughout DPR to address worker protection, integrated pest management, water quality, air quality (contributions to smog and ozone depletion), and endangered species protection. In conjunction with DPR management, the Enforcement Branch:

- identifies activities with high levels of non-compliance that pose a high risk of causing environmental harm
- identifies activities or entities with the highest incidences of non-compliances
- identifies chronic or recalcitrant violators (local, regional or statewide)
- identifies local, regional and statewide violation patterns
- identifies correlations between areas of greatest non-compliance
- sets realistic goals for incorporation into DPR activities and county work plans, and develops the methodologies to measure progress
- develops additional environmental indicators

## II. DPR'S ENFORCEMENT PROGRAM

### A) Overview

#### Mission Statement

DPR's mission is to protect human health and the environment by regulating pesticide sales and use, and by fostering reduced-risk pest management.

#### Organizational Structure

The size and diversity of California agriculture dictate a much more complex partnership between Federal, State and local pesticide regulatory authorities than anywhere else in the nation in part because the county-based regulatory structure predated both the State or Federal regulatory structure.

The Department of Pesticide Regulation oversees a multi-tiered enforcement program. The USEPA promulgates federal regulations covering minimum pesticide requirements that are enforced at the State and local (county) levels through cooperative agreements. Over the years, the California Legislature has passed more stringent laws covering registration; licensing of entities applying, using, or recommending pesticides; and the use of pesticides to protect the environment, the public and worker health.

DPR has primary responsibility to enforce pesticide laws and regulations in California. Enforcing pesticide use laws and regulations is a joint responsibility of the DPR and the CACs who administer pesticide use enforcement on the local level. California Food and Agricultural Code (FAC) section 2281 outlines respective responsibility for enforcement of the pesticide laws and regulations.

The Structural Pest Control Board (SPCB), within the State Department of Consumer Affairs, administers licensing of structural pest control businesses and structural applicators. Food and Agricultural Code section 15201.1 outlines general responsibilities and roles for DPR, SPCB, and the CACs in licensing and pesticide use for structural pest control activities. It specifies that the CACs regulate pesticide use in structural activities under the direction and supervision of DPR.

The Department of Public Health (DPH) oversees the activities of local vector control (public health/ mosquito abatement) agencies. DPR, DPH, and the CACs are parties to a three-way memorandum of understanding that outlines responsibilities and coordination relating to vector control activities. It addresses pesticide availability, applicator certification, pesticide use report, and episode reporting.

DPR, USEPA Region 9, and the CACs are parties to a three-way cooperative agreement that ensures a unified and coordinated program of pesticide episode reporting, investigation, and enforcement action in the State of California.

Additionally, DPR has an agreement with the United States Department of Agriculture (USDA) to sample food commodities for the USDA Food Safety Program for both pesticide residues and microbial pests (e-coli, salmonella, etc.).

## **DPR's Enforcement Branch**

The Enforcement Branch:

- has overall responsibility for all pesticide use enforcement activities of the CACs, providing training coordination, oversight and technical support to roughly 280 county agricultural biologists involved in the local enforcement programs
- has oversight responsibility for pesticide incident investigations
- administers the nation's largest state monitoring program for pesticide residues on domestic and imported produce
- inspects for compliance with pesticide product registration and labeling requirements

The Enforcement Branch is comprised of headquarters and three regional offices located in Anaheim, Fresno, and West Sacramento. Headquarters' staff develop policies and procedures; direct and manage the department's food safety program; review and make recommendations for product use practices prior to registration, including alternatives and mitigation measures; interpret pesticide labels for compliance with state and federal statutes; analyze, propose and/or develop legislation and regulation; compile and analyze statewide data for use in developing and modifying existing pesticide environmental regulations (air, ground, endangered species), worker protection and food safety programs; and coordinate the structural pest control program with the CACs and the Department of Consumer Affairs, Structural Pest Control Board (SPCB).

The Enforcement Branch's three regional offices work with CAC staff to plan and prioritize pesticide compliance and use enforcement activities. DPR assigns each regional office to work with specific counties. A senior-level staff member from the regional office, known as an enforcement branch liaison, is assigned to each CAC.

## **Product Compliance and Enforcement**

The Product Compliance Branch receives the Enforcement Branch staff's inspections that find violations of registration and labeling requirements. In combination with information generated through its audits, complaints, and review of internet Web sites, the Product Compliance Branch forwards cases involving the unregistered and misbranded product sales to DPR's Office of Legal Affairs for enforcement. It also audits pesticide sellers to assure the appropriate statutory fee on their sales has been paid. The focus of the product compliance program is two-fold:

- protection of the environment and public health by enforcing registration requirements that assure that pesticide products are evaluated for efficacy and safety, and labeled with the appropriate instructions and precautions, and
- assuring fiscal support of our regulatory programs by enforcing the payment of the required fee based upon the volume of sales into California

All pesticide products must be registered before they can be sold in California. The registration process requires an evaluation to ensure the product can be used safely under California conditions. Before registration, DPR scientific and technical staffs review data on the product to ensure that it is properly labeled and will not cause health or environmental problems. Unregistered products, often sold over the internet or my mail, have not undergone this kind of scrutiny and may pose unrecognized hazards to health or the environment.

DPR's Product Compliance Branch conducts audits of pesticide sellers throughout the U.S. to determine proper registration, verify sales, and document payment of mill assessment fees. To ensure that products in the channels of trade are in compliance with state and federal pesticide laws, the Enforcement Branch inspects products offered for sale at retail and wholesale nurseries, hardware, home and garden centers, landscape material suppliers; agricultural chemical dealers; feed, farm, and pet suppliers; industrial and institutional vendors; restaurant and hospital suppliers; grocery and drug stores; pool and spa centers; and other sites where pesticides are sold. In 2008, about 33 percent of the inspections reveal violations.

The Product Compliance Branch takes the lead when violations of sales, labeling, or registration are found by directing investigations, collecting evidence, and documenting findings to substantiate the violations. The Product Compliance Branch coordinates with DPR's Legal Office to develop and propose appropriate enforcement actions, including settle agreements. Most violations are resolved by the collection of civil penalties resulting from a settle agreement between DPR and the pesticide seller.

#### County Agricultural Commissioners Pesticide Use Enforcement

California's pesticide enforcement program stands apart from those of the other states in that it has CACs in nearly all of the 58 counties while other states have inspectors who are employed by the state lead pesticide agency and conduct all pesticide use inspections statewide (Three of California's smaller counties are combined with the CAC offices of others: Sierra with Plumas, Mono with Inyo, and Alpine with El Dorado.). The CACs serve as the primary enforcement agents for State pesticide laws and regulations.

CACs enforce federal and state pesticide laws and regulations at the local level. CACs issue site-specific local permits for the use of restricted materials, conduct on-site application inspections, administer full pesticide use reporting, conduct worker safety inspections, and investigate pesticide incidents.

CAC staff inspects the operations and records of growers, pest control applicators, pest control dealers, and agricultural pest control advisers. They also certify private applicators and issue restricted material permits. In addition, CAC staff train pesticide users, conduct pesticide episode/priority investigations, and conduct fieldwork and pesticide handler inspections to assure compliance with worker protection standards and other pesticide use requirements. Fiscal year summaries of county workload can be found in the California Pesticide Regulatory Activities Monthly Report (PRAMR) online at: [www.cdpr.ca.gov/docs/enforce/report5.htm](http://www.cdpr.ca.gov/docs/enforce/report5.htm).

## **B) DPR Enforcement Program Components**

### **1) Oversight of Counties and County Activities**

California law designates DPR as the agency responsible for delivering an effective statewide pesticide regulatory program. However, the Legislature delegated local administration of the pesticide use enforcement program to the CACs, governed by the instructions and recommendations of the DPR. The success of the *statewide* use enforcement program therefore depends on DPR oversight and guidance and the CACs efforts to implement an effective program. DPR uses its statewide authority to oversee, evaluate, and improve the CACs' use enforcement programs. DPR assists the CACs in the planning and development of adequate county programs; evaluates the effectiveness of the local programs; and assures corrective actions are taken in areas needing improvement.

The goal of DPR's enforcement program and the CACs is to protect public health, property, pesticide handlers and fieldworkers, and the environment of California. We strive for consistent enforcement across all 58 counties of the pesticide laws and regulations. DPR and CACs strive to meet these goals by following the enforcement response regulations, as well as creating work plans with directed priorities.

Enforcement branch liaisons are located in DPR's three regional offices (Sacramento, Fresno and Anaheim) and serve as the primary contact point between CACs and DPR. Each liaison is assigned to specific counties and works with CACs and staff to develop and revise annual county work plans, provide direction and/or assist in county investigations, consult on appropriateness of proposed enforcement actions (strength of evidence, proper classification of the violation and fines), provide training and outreach, as well as interpret label and regulatory requirements. Liaisons assess the effectiveness of CAC's overall pesticide enforcement program by conducting side-by-side inspections with county staff; reviewing restricted material permits and notices of intent; reviewing CAC inspections and investigative reports, and making recommendations for additional investigation or data; and reviewing compliance and enforcement actions. Liaisons track incident investigations and complaints, and assist in the development of cases involving licensees, which may lead to a possible license suspension or revocation by the state.

**Annual County Work Plans and Evaluations:** As part of an organization-wide effort to incorporate continuous quality improvement into California's pesticide enforcement program, DPR and the CACs developed a cycle that includes state and local program review, planning, implementation, and evaluation. DPR's guidance represents a simplified approach in targeting core enforcement program priorities and evaluating the effectiveness of county programs. In turn, county work plans identify state, regional, and local compliance problems, emerging issues, and measurable solutions based on available resources. DPR uses jointly developed performance standards to evaluate the effectiveness of the county's enforcement program.

DPR's three regional offices help CACs develop annual work plans that detail each county's priorities in improving enforcement, compliance and permitting. The work plans have clearly stated goals and performance measures, balancing DPR's statewide enforcement priorities with local conditions unique to each county. DPR regional staff also evaluate CAC performance, using objective-based performance measures that examine how well counties are targeting local problems and patterns of continuing violations. Work plans and evaluations, by county, can be downloaded as noted below.

As noted earlier, DPR does not track its workload (resources, outputs and outcomes) on a calendar year basis. DPR fiscal year program metrics are available on its website at <http://www.cdpr.ca.gov/docs/dept/planning/performance/index.htm>.

In September 2008, DPR posted county enforcement statistics, work plans and evaluations at: [www.cdpr.ca.gov/docs/county/enf\\_stat\\_profile.htm](http://www.cdpr.ca.gov/docs/county/enf_stat_profile.htm).

The CACs reported the following statewide workload statistics in 2007 and 2008:

<b>Preliminary CAC Reported Workload Statistics - Inputs</b>	<b>2007</b>	<b>2008</b>
CAC Licensed Staff Hours	511,000	510,300
CAC Support Staff Hours	158,400	153,100
<b>Preliminary CAC Reported Workload Statistics – Outputs</b>		
<b><i>Restricted Materials Permitting</i></b>		
Restricted Material Permits Issued	38,800	39,700
Permits Denied	440	410
Notices of Intent to Apply a Restricted Material Reviewed	155,400	145,000
Notices of Intents Denied	1,600	1,700
Pre-Site Application Evaluations/Inspections	11,000	9,600
<b><i>Compliance Monitoring</i></b>		
Inspections*		
Agricultural Use	7,240	7,380
Field Worker Safety	1,130	1,300
Commodity Fumigation	430	340
Field Fumigation	670	780
Records Inspections	5,370	5,500
Structural Fumigation	1,970	1,950
Structural Non-Fumigation	1,420	1,220
Investigations	1,600	1,600
<b><i>Enforcement Response</i></b>		
CAC Compliance Actions	4,200	3,900
CAC Enforcement Actions		
Number of Enforcement Cases Closed	1,300	1,000
Amount of Civil Penalties Assessed	\$570,200	\$363,700
Number of Cases Referred to District Attorney	2	2
<b><i>Compliance Assistance</i></b>		
Training & Outreach Sessions	1,260	1,400
Number of Persons Attending	40,600	40,000
<b><i>County Registrations &amp; Certification</i></b>		
Operator Ids for Non-Restricted Use Issued	13,000	13,400
Private Applicator Certificates Issued	6,500	5,700
Pest Control Business /Advisors / Pilots Registered	12,100	11,800
Farm Labor Contractor Registered	2,200	2,500
Structural Pest Control Business Registered	5,700	6,200
<b>Preliminary CAC Reported Workload Statistics - Outcomes</b>		
Total Inspections Conducted	18,240	18,480
Inspections with 1 or More Violations	2,570	2,470
Inspections with 100% Compliance Rate	86%	87%
Total Number of Criteria Evaluated	330,130	329,340
Total Number of Criteria in Compliance	323,382	323,970
Compliance Rate for Criteria Inspected	98%	98%

\* County inspection data and compliance rates are from DPR's Inspection Tracking Database. Counties conduct additional inspections (follow-ups, partials, tarp/aeration, etc.) that are not currently captured in DPR's database; compliance rates and specific inspection elements cannot be evaluated.

## 2) Food Safety

DPR's Food Safety Program monitors compliance with pesticide laws to ensure that all food meets pesticide safety standards. Sampling and laboratory analysis serve to detect each of the two categories of illegal residues: (1) pesticide residues that exceed established tolerance levels, and (2) residues of pesticides for which no tolerance has been established for a specific crop. When illegal residues are found, DPR reacts immediately by removing the illegal produce from sale, and then verifies that the produce is either destroyed or returned to its source. In addition, if the owner has similar produce from the same source, DPR quarantines that produce until the laboratory verifies that it is free from illegal residues. Further, DPR traces the distribution of the illegal produce by contacting distributors throughout California, imposing additional quarantines and conducting additional sampling as needed.

DPR administers the state-mandated *Pesticide Residue Surveillance Program* that involves produce sampling and data collection activities. DPR's Program is the most extensive state residue-monitoring program in the nation. It is the final check in an integrated network of programs designed to ensure the safe use of pesticides in California.

DPR Enforcement staff samples individual lots of domestically produced and imported foods and delivers them to a California Department of Food and Agriculture (CDFA) laboratory where they are tested to determine compliance with USEPA approved tolerances. Routine samples are analyzed for more than 200 pesticides and breakdown products. In addition, selected samples receive specific analysis for non-screenable pesticides of dietary and enforcement concern. Samples are collected throughout the channels of trade -- packing sites and wholesale and retail markets. The Department and CACs investigate every incident of illegal residue detected in the residue-monitoring program for California grown produce. After the detections of over-tolerance and no-tolerance-established residues, DPR takes actions such as issuing stop sales and crop destruct orders.

Another component of our Food Safety Program is our participation in USDA's Pesticide Data Program (PDP) and Microbiological Data Programs (MDP). It should be noted that USDA does not report back to the states the analytical results on residue findings for each sample collected, but publishes annual reports which are available on the USDA website.

PDP: USDA started PDP in 1991 to test commodities in the U.S. food supply for pesticide residues. PDP tests for over 290 pesticides in over 50 different food commodities. This program maintains an electronic database that serves as a central data repository. USDA prepares annual summaries of the PDP data that are publicly available on the Internet. The summaries provide data on pesticide dietary exposure, food consumption, and pesticide use. PDP data are used by the USEPA to make realistic assessments of dietary pesticide risk and for the ongoing review of pesticide tolerances. Besides USEPA, the U.S. Food and Drug Administration (US FDA), academic institutions, food producers, chemical manufacturers and environmental groups use PDP data. PDP data are statistically representative of the overall residue situation for a particular pesticide, commodity, or place of origin.

MDP: The goal of the MDP Program is to provide data on the presence of foodborne pathogens and indicator bacteria on fresh fruit, vegetables, and more recently, fish. MDP currently tests for six microorganisms: generic E. coli, shiga toxin producing E.coli (STEC), enterotoxigenic E.coli (ETEC), E.coli 0157:H7, Salmonella, and Shigella.

<b>Food Safety - Samples Collected - Outputs</b>	<b>2007</b>	<b>2008</b>
Number of State Residue Program Samples Collected	3,562	3,483
Number of USDA – PDP Samples Collected	2,632	2,708
Number of USDA – MDP Samples Collected	420	724
<b>Food Safety – State Residue Sample Analyses Results - Outcomes</b>		
Number of Samples with No Residues Detected	2,230	2,444
Number of Samples with Residues within Legal Tolerances	1,290	999
Number of Samples with Illegal Residues	45	40

### 3) Registration, Licensing, and Product Compliance

As stated earlier, DPR’s mission is to protect human health and the environment by regulating pesticide sales and use and by fostering reduced-risk pest management. Three major components of DPR’s multi-pronged approach include product registration, licensing of individuals and businesses that perform or supervise pest control activities, and surveillance of products sold in the marketplace to ensure they are registered and meet California’s health, environmental, and safety standards.

**Product Registration:** Before pesticides can be sold or used in California, they must be registered both by USEPA and by DPR. Scientists in both organizations evaluate the safety and potential environmental effects of products before they are registered. The California evaluation is focused on use under California conditions – whether in an agricultural field or an urban setting. Before registration, DPR scientific staff (toxicologists, biologists, entomologists, plant physiologists, and chemists) reviews data on the product to ensure that it is properly labeled and will not cause health or environmental problems. DPR scientists review data to determine a product’s potential to cause human health problems; how it behaves in the environment; its effectiveness against targeted pests (efficacy); how it breaks down in the environment and its potential to contaminate soil, water, and air; its effects on fish and wildlife; and the degree of worker exposure resulting from its labeled use.

Unregistered products – sometimes sold over the Internet or by mail order – have not undergone this kind of scrutiny and may pose unrecognized hazards to health or the environment.

**Licensing and Certification:** To ensure that pesticides are handled and used according to state and federal laws and label directions, any individual who recommends, uses or supervises the use of a pesticide must meet strict education requirements and take and pass examinations covering the type of pest control work they perform prior to being issued a license or certificate by DPR. In addition, these individuals must take continuing education in order to maintain and renew their licenses or certificates. These include applicators, aircraft pilots, pest control advisers, and pest control dealer agents.

DPR administers examinations, issues new and renews licenses or certifications in the following categories:

<b>DPR Licensing and Registration - Outputs</b>	<b>2007</b>	<b>2008</b>
Number of Registered Products	11,940	11,700
Number of Pesticide Registrants	1,310	1,340
New Licenses and Certificates Issued	1,720	2,530
Renewed Licenses and Certificates Issued	12,500	10,640
Exams Administered By DPR	9,100	9,050

**Product Compliance:** Pesticide product compliance activities are jointly carried out between DPR's Product Compliance Branch staff and the Enforcement Branch staff. To ensure that products used in California are registered and approved by USEPA and DPR, Enforcement field staff performs inspection and compliance activities under both a State mandated program and as part of DPR's consolidated cooperative agreement with USEPA. Under the current pesticide product compliance program, DPR field inspectors conduct approximately 350 inspections at manufacturing facilities and business throughout the state. When staff uncovers sales of unregistered pesticide products, the Product Compliance Branch initiates investigations and cases are sent to the Office of Legal Affairs which obtains administrative penalties through settlements or enforcement actions.

Mill fees must be paid on all pesticide sales, including agricultural and non-agricultural products. This includes not only insecticides and herbicides, but also many products not generally thought of as pesticides, including sanitizers, disinfectants, mildew removers, pool chemicals, and insect repellants. Ensuring that all pesticide sellers pay the required mill fee makes the marketplace a level playing field for all pesticide sellers -- assuring that those who comply are not operating at a disadvantage to those who do not. The Product Compliance Branch conducts investigations and audits to identify pesticide sellers who are not paying or are underpaying mill fees. Sellers must pay any money due and a penalty, and may be subject to administrative or civil penalties.

During 2008, DPR conducted inspections and investigations to ensure compliance with product registration and mill assessment reporting (funds collected based on sales of product into California). The following is a summary of these preliminary statistics:

<b>DPR State Product Compliance Activities – Outputs</b>	<b>2007</b>	<b>2008</b>
Number of Product Compliance Inspections Conducted	290	294
Number of Product Compliance Audits Completed	49	67
Number of Cases Pursued by the Office of Legal Affairs	130	182
<b>DPR State Product Compliance Activities – Outcomes</b>		
Cases Forwarded to EPA for Action	54	74
Number of Findings of Unregistered Products	535	583
Number of Cases Settled by DPR	117	94
Penalties Collected by DPR	\$1,776,293	\$1,416,191

#### **4) Agricultural Pest Control and Pesticide Use Reporting (PUR)**

California's pesticide use reporting program is recognized as the most comprehensive in the world. Limited use reporting requirements have been in force since at least 1950. However, these requirements were substantially changed in response to demands for more realistic and comprehensive pesticide use data for estimating dietary risk, exposure and potential risk to workers. In 1990, California became the first state to require full reporting of agricultural pesticide use in response to demands for more realistic and comprehensive pesticide use data. Under the program, all agricultural pesticide use must be reported monthly to the county agricultural commissioner, who in turn, reports the data to DPR.

California has a broad legal definition of "agricultural" use so the reporting requirements include pesticide applications to parks, golf courses, cemeteries, rangeland, pastures, and along roadside and railroad rights of way. In addition, all post-harvest pesticide treatment of agricultural commodities must be reported, along with all pesticide treatment in poultry and fish production, as well as some livestock applications.

Structural pest control operators, professional gardeners, and other nonagricultural pest control operators continue to report all pesticide use as they did under the earlier regulations. The primary exceptions to the full use reporting program requirements are home and garden use and most industrial and institutional uses.

The pesticide use data are used by DPR staff scientists in developing dietary risk assessments; assessing potential groundwater contamination from the use of specific pesticides; determining VOC emissions; and assessing impacts on endangered species. DPR also uses the data to analyze how, when and where pesticides are used on different crops. Reduced-risk pest management alternatives can then be developed considering the different regions of the state and commodities grown in these regions.

The pesticide use data can also be correlated with inspection data to assess if inspections are adequate during periods of high use, or if an adequate number of inspections are being conducted during the peak use period of products of particular concern.

Site-specific use report data, combined with geographic data on sensitive sites including schools, farm labor camps, urban areas, water bodies (streams, lakes, rivers), and endangered species habitats, help CACs resolve potential pesticide use conflicts. Other government agencies, researchers, environmental advocates, and public interest groups use the PUR data extensively in carrying out their programs.

Annual statewide and county specific pesticide use data summaries by commodity and by pesticide dating back to 1989 can be obtained from DPR's website at [www.cdpr.ca.gov/docs/pur/purmain.htm](http://www.cdpr.ca.gov/docs/pur/purmain.htm).

Queries against the PUR databases dating back to 1990 can be run from the California Pesticide Information Portal website at [www.cdpr.ca.gov/docs/pur/purmain.htm](http://www.cdpr.ca.gov/docs/pur/purmain.htm).

<b>Agricultural Pesticide Use – Inputs</b>	<b>2007</b>	<b>2008</b>
Agricultural Pest Control Businesses	6,800	6,500
Agricultural Pest Control Operators, Advisers, & Pilots	5,400	5,300
Private Applicators	19,000	18,900
Property Operators (Restricted & Non-Restricted)	101,800	94,300
Number of Agricultural Fields/Sites	238,000	276,800
<b>Agricultural Pesticide Use – Outputs</b>		
Number of Production Agricultural Applications <sup>1</sup>	2,196,900	1,879,800
<b>Pesticide Use – Outcomes</b>		
Pounds of Pesticide Active Ingredients Used in Production Agriculture	157,668,000	133,860,000
<b>All Other<sup>2</sup> Pesticide Use – Outputs</b>	<b>2007</b>	<b>2008</b>
Number of Other Applications	3,390,800	3,247,500
<b>All Other Pesticide Use – Outcomes</b>		
Pounds of Pesticide Active Ingredients Used – Other	11,233,500	10,552,400

<sup>1</sup>Pesticide applications may contain one or more pesticide products (referred to as a tank mix) and each product may contain one or more active ingredients (chemicals). Also of note, California requires that spray adjuvants (including emulsifiers, spreaders and stickers) that enhance the efficacy of a pesticide be registered as a pesticide and reported. The number of pesticide use records reflects the number of each pesticide product reported. For example, if one application is composed of two products, the number of records would equal two, i.e., one for each product. Therefore, the number of pesticide applications made in California is approximately 25-50 percent less than the number of records indicated below.

<sup>2</sup>“All Other” applications include post-harvest commodity fumigations; landscape maintenance in parks, cemeteries, and golf courses; rights of way; and public health (vector control) pesticide applications. Under current regulatory requirements not all applications are reported (home use, indoor industrial and institutional), creating a data gap in the “total” figure.

The following chart displays detailed compliance and non-compliance (including number of violations) data from DPR's inspection tracking database on the number of inspections conducted by the CACs in 2007 and 2008 in the *agricultural* use setting. Each inspection type not only evaluates a particular category of mandated human health and environmental requirements, but also unique sections of laws and regulations pertaining to that specific inspection type.

Agricultural Inspection Type	CAC Inspections Conducted			Compliance Elements Inspected			
	Total Number	With Violations	100% Compliance	Compliant	Non-Compliant	Total Elements	Rate
Field Worker Safety							
2007	1,133	139	87.7%	5,088	213	5,301	96.0%
2008	1,302	144	88.9%	90,768	3,090	93,858	96.7%
Pesticide Mix-Load							
2007	1,973	182	90.8%	38,150	465	38,615	98.8%
2008	2,019	177	91.2%	39,024	417	39,441	98.9%
Pesticide Application							
2007	5,269	971	81.6%	90,161	3,050	93,211	96.73%
2008	5,357	994	81.4%	90,768	3,090	93,858	96.7%
Commodity Fumigation							
2007	434	4	99.1%	9,945	12	9,957	99.9%
2008	340	8	97.6%	7,732	25	7,757	99.7%
Field Fumigation							
2007	666	29	95.6%	18,575	77	18,652	99.6%
2008	782	38	95.1%	21,994	85	22,079	99.6%
Records							
2007	4,130	687	83.4%	59,888	1,799	61,687	97.1%
2008	4,255	667	84.3%	60,756	1,693	62,449	97.3%
<b>Total Agricultural</b>							
2007	13,605	2,012	85.2%	221,807	5,616	227,423	97.5%
2008	14,055	2,028	85.6%	226,247	5,518	231,765	97.6%

### 5) Structural Pest Control and Pesticide Use Reporting

DPR has primary authority for enforcing pesticide use by structural pest control licensees, overseeing the CACs who administer the local enforcement program. The Structural Pest Control Board (SPCB) is responsible for licensing persons engaged in structural pest control work. DPR is signatory of a three-way Memorandum of Understanding (MOU) with the SPCB and CACASA to ensure a uniform and coordinated Structural Pest Control Enforcement Program. Commissioners' and SPCB's staff periodically perform similar enforcement activities such as business office and records inspections. When the SPCB encounters possible pesticide use violations, they refer those findings to the commissioner for "follow-up" investigation.

SPCB administers licensing of structural pest control applicators, field representatives, structural pest control operators, and registered companies; enforces licensing provisions; and ensures consumer protection.

Beginning January 1, 2008, San Diego County became the fourth county (Orange, Los Angeles, Santa Clara) to participate in an expanded Structural Pest Control Enforcement Program. In 1993, representatives of the local structural pest control industry in Los Angeles and Orange counties requested their respective CACs to increase monitoring of the structural fumigation industry based on their awareness of substandard structural fumigations that were damaging the reputation of the local structural pest control industry. Los Angeles and

Orange counties have been participating in the program since its inception; legislation passed in 2007 added Santa Clara County to the Program.

To pay for the program, structural pest control companies (in participating counties) pay \$5 per structural fumigation to the CAC. This increased level of funding allows for increased inspections and associated structural fumigation enforcement activities. These expanded activities are critical to gaining a higher level of compliance with pesticide laws and regulations that result from an increased presence of county inspectors in the field. This program helps to ensure the health and safety of workers, the public, and the environment.

Effective January 1, 2008, Assembly Bill (AB) 1717 replaced the annual county notification requirements for structural pest control businesses and licensees with a county registration program. Importantly, this new law requires that 24-hour advance notice be given to the CAC of all structural fumigations. Twenty-four hour notice of structural applications will assist the CACs in locating fumigations to monitor and inspect.

<b>Structural Pesticide Use – Inputs</b>	<b>2007</b>	<b>2008</b>
Structural Pest Control Businesses	NA	6,200
Structural Pest Control Individual Licensees <sup>1</sup>	NA	21,000
<b>Structural Pesticide – Outputs</b>		
Number of Structural Applications	9,283,500	8,780,700
<b>Structural Pesticide Use – Outcomes</b>		
Pounds of Pesticide Active Ingredients Used In/Around Structures	3,965,700	3,103,900

<sup>1</sup>Licensees include individuals who identify infestations or infections and make inspections; applicators who apply fumigants; and applicators who apply materials used in non-fumigant settings.

The following chart displays detailed compliance and non-compliance (including number of violations) data from DPR's inspection tracking database on the number of inspections conducted by the CACs in 2007 and 2008 in the *structural* use setting. Each inspection type not only evaluates a particular category of mandated human health and environmental requirements, but also unique sections of laws and regulations pertaining to that specific inspection type.

Structural Inspection Type	CAC Inspections Conducted			Compliance Elements Inspected			
	Total Number	With Violations	100% Compliance	Compliant	Non-Compliant	Total Elements	Rate
Fumigation							
2007	1,970	140	92.9%	61,718	303	62,021	99.5%
2008	1,954	119	93.9%	60,903	223	61,126	99.6%
Non-Fumigation							
2007	1,424	258	81.9%	28,016	514	28,530	98.2%
2008	1,218	174	85.7%	23,917	290	24,209	98.8%
Records							
2007	1,243	160	87.1%	11,841	316	12,157	97.4%
2008	1,248	145	88.4%	11,998	246	12,224	98.0%
<b>Total Structural</b>							
2007	4,637	558	88.0%	101,575	1,133	102,708	98.9%
2008	4,420	438	90.0%	96,818	759	97,559	99.2%

## 6) US EPA Cooperative Agreement

California received delegated authority from USEPA to carry out and enforce the state's pesticide regulatory program in 1975. An annual cooperative agreement between the two agencies delegates enforcement authority to California; pursuant to the agreement, DPR identifies state priorities and reviews its program to assure its activities incorporate USEPA's national priorities.

A second cooperative agreement between USEPA, DPR and the CACs was developed in order to ensure a unified and coordinated program of pesticide episode reporting, investigations, and enforcement action in the state. It sets criteria that define a priority incident, and for episodes that meet that definition, it establishes specific reporting requirements to DPR and USEPA and sets time frames for the submission of the episode investigation reports. The defining criteria are based on the effect to human health and environment, the significance of any economic loss, and other specific circumstances. The agreement establishes that an enforcement action on a priority incident by USEPA or DPR/CACs does not preclude action by the other party. It provides that the required reports will be used to evaluate the investigations and actions to assure compliance by the state obligations under its federally delegated authority.

### DPR-USEPA Work Plan

DPR develops its annual work plan and mid-year report in consultation with the USEPA based on the current fiscal year joint EPA Office of Pesticide Programs /Office of Enforcement and Compliance Assistance (OPP/OECA), State/Tribal Cooperative Agreement Guidance and Region 9 guidance letter.

The work plan provides an overview of each key area of the state program and related branch activities, outlines the conduct of the activities, and lists specific deliverables DPR will provide to Region 9 on a quarterly, mid-year, and/or end-of-year timeframe. Included is an itemization of the types of training DPR will conduct or participate in or conduct, recently passed or pending regulations, DPR policy interpretations issued to CACs, the number of anticipated and agreed upon inspections in all categories, and all priority investigations and our enforcement response.

DPR and USEPA Region 9 staff meet at least semi-annually to review progress and to develop/refine program goals. The figures below represent work outputs generated strictly under the annual USEPA cooperative agreement.

<b>DPR Federal Activities per USEPA Cooperative Agreement - Outputs</b>	<b>2007</b>	<b>2008</b>
Total Inspections Conducted under the USEPA Cooperative Agreement	400	393
Producing Establishment Inspections	40	44
Product Compliance Inspections	130	130
County Oversight Inspections	230	219
Samples Collected to Determine Compliance - Label Ingredient Statement	35	34
Cases Forwarded to USEPA for Action	76	74

## 7) Compliance Assistance and Training

DPR conducts a variety of outreach activities with counties, industry, and the public to educate and inform stakeholders to gain compliance with our laws and regulations.

## Promoting Safer, Less Toxic Pest Management Strategies

DPR's Pest Management Alliance Program has been one of its most successful initiatives, developing partnerships with the private sector that promote safer, less toxic strategies with economic benefits as a bonus. Many Alliances have become self-sustaining statewide efforts that permanently change an industry's pest management strategy for the better. Budget cutbacks forced DPR to suspend the grants in 2002, but with Administration support, the program was revived in 2008. These projects are closely tied to DPR's regulatory priorities for the protection of air, water, agricultural, and urban environments.

During 2008, DPR funded a total of six Alliance projects for a total of more than \$1.1 million:

- *Almond* – Aims to reduce the use of highly toxic pesticides by 25 percent at three demonstration sites
- *Grape* – Extends reduced-risk wine grape pest management strategies to wine, table and raisin grape growers in the San Joaquin Valley
- *Urban Pest* – Seeks ant control alternatives to pyrethroid insecticides identified as a runoff hazard in urban streams
- *Peach* – Focuses on a 20 percent cutback in the use of organophosphate insecticides used by the canning peach industry in the San Joaquin Valley
- *Urban Child Care* – Takes the IPM principles successfully applied by DPR to California schools and extends them to child care centers beginning with a survey of child care providers in the San Francisco Bay Area and development of English and Spanish-language educational materials on common pests
- *Waterways Runoff* – Focuses on reducing pesticide runoff up to 10 percent by 2011 by tomato, alfalfa, walnut and wine grape growers in the Sacramento-San Joaquin Delta

Information about the grants and the Pest Management Alliance Program is available on DPR's website at <http://www.cdpr.ca.gov/dprgrants.htm>.

## Protecting Children's Health

The Healthy Schools Act of 2000 placed into law California's existing voluntary school integrated pest management (IPM) program and added requirements for public schools and child day care facilities that include parental notification of pesticide applications, posting of warning signs, pesticide recordkeeping, and pesticide use reporting by licensed pest control businesses that apply pesticides at public schools and child day care facilities. The law was amended and effective January 2007, these requirements were extended to private child day care facilities (except for family child care homes).

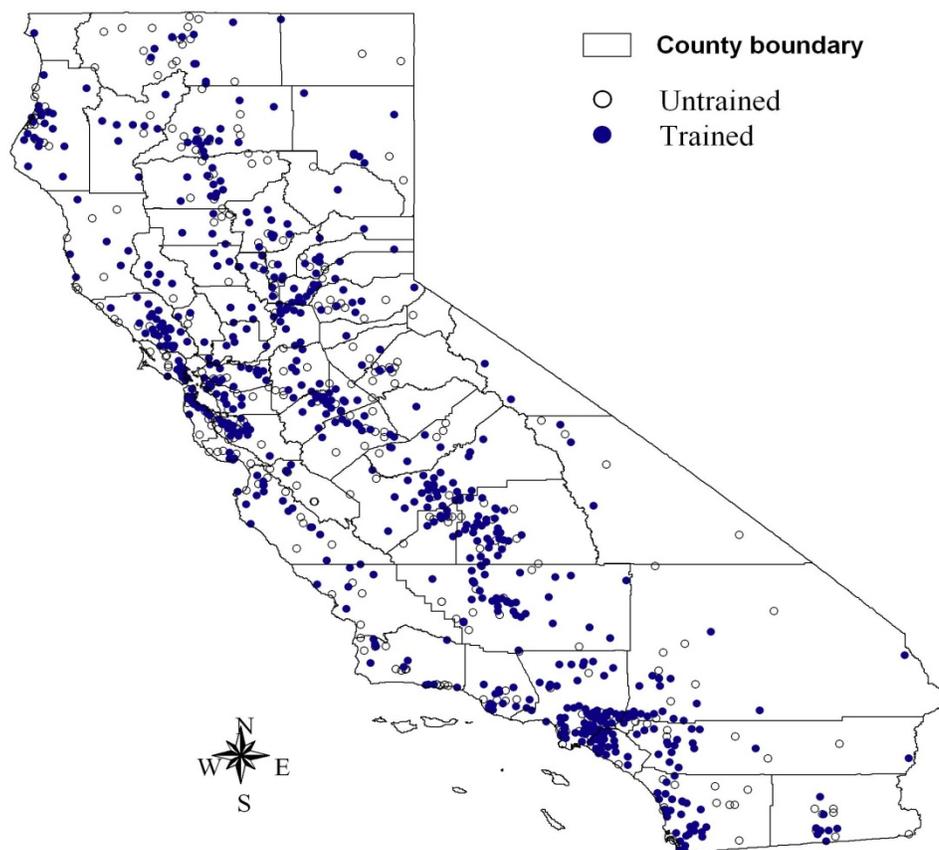
DPR is committed to facilitating voluntary adoption of IPM policies and programs in schools and child day care facilities throughout California and during 2008, DPR staff:

- Conducted four regional school IPM training workshops for school district IPM coordinators
- Conducted six training sessions on IPM in child day care facilities and requirements of the Healthy Schools Act to licensing program analysts in the Department of Social Services Community Care Offices
- Developed a School IPM exhibit booth
- Participated in conferences such as the Coalition of Adequate School Housing, Green California Summit, National School IPM Working Group, Western School IPM Implementation and Assessment Working Group, and the Professional Association for Childhood Education

- Established partnerships with UC Berkeley’s Center for Children’s Environmental Health, UC San Francisco’s Childcare Health Program, and the Collaborative for High Performance Schools

The map graphically displays the total number of school districts that have received training on IPM practices and requirements of the Healthy Schools Act through 2008.

## California Public School Districts in 2008



December 3, 2008

### Protecting Workers’ Health

DPR’s long-held belief is that by protecting workers many problems can be avoided and benefits accrue to everyone and the environment. In 2004 at the request of the Legislature and interested groups, the California Food and Agricultural Code (FAC) was amended to require that DPR “create a program to conduct outreach and education activities for worker safety... to include . . . rights and procedures of workers and those potentially exposed to pesticides and how to file confidential complaints.” Although this over-arching mandate was not funded, DPR pursued funding and hired one individual in November 2007 to initiate outreach activities aimed at reaching Hispanic workers and communities.

Staff from the Worker Health and Safety Branch began participating in workgroups; providing literature to migrant clinics and other care facilities; making contacts and participating in presentations; attending meetings and staffing informational booths at health fairs and other festivals to respond to questions on pesticides safety and provides informational literature; and participating in various radio and television interviews. Many of the events are held on weekends and after hours and generally require long distance travel.

During 2008, working cooperatively with representatives from various community health and farm worker advocacy groups, Worker Health and Safety, Enforcement and CAC staff participated in various parents meetings, fiestas, and health fairs:

- Participated in more than 30 community meetings, health conferences, and other events to promote pesticide safety for workers and their families with attendance estimated at 25,000 across the various events
- Visited a health services center on six occasions in Stanislaus County to help farm worker families learn more about pesticide use in the home
- Was interviewed as a guest on two Radio Bilingue programs with a listening audience of 2,000
- Appeared on two KCSO Telemundo 33 television programs (one of the two largest Spanish language stations in the Central Valley with a viewer-ship estimated at 20,000).

### **General Outreach**

During 2008, DPR staff made approximately 50 presentations to various industry groups to present updates on pesticide laws and regulations covering a variety of subject areas including endangered species, licensing requirements, VOCs, respiratory protection, worker protection, pesticide use reporting, registration and labeling, rice herbicides, pest management practices, drift prevention, structural pest control, and enforcement response regulations. Attendance at each presentation ranges from 50-500 individuals.

DPR maintains a “compliance assistance” website aimed at providing up-to-date information for employers and others who are required to comply with pesticide laws and regulations. The sites provide a wide range of information on worker safety; licensing; pesticides subject to special conditions (i.e., minimal exposure, dormant spray, field fumigant, and ground water restrictions; engineering controls; restricted entry intervals; and personal protective equipment); state and national pesticide databases; and state and national pesticide-related resource centers. During 2008, the main compliance assistance website received approximately 10,000 hits; this does not include the number of times specific documents were viewed or downloaded. The website is available at <http://www.cdpr.ca.gov/docs/dept/quicklinks/compliance.htm>

### Training

Throughout 2008, Enforcement Branch staff arranged and conducted training for CAC staff in the following areas.

- Structural pest control enforcement training
- Inspection procedures – included were new statutory and regulatory requirements for VOCs, structural pest control, and groundwater protection
- Pesticide Wildlife Incident Response Plan - conducted in cooperation with the Department of Fish and Game
- Investigative Techniques – small group training on regional basis

A total of 30 sessions were conducted statewide with approximately 640 attendees.

## Enforcement Program Metrics

### Data Characteristics

The DPR developed a summary of annual statewide CAC pesticide enforcement program statistics. This first annual California Enforcement Statistical Profile consolidates CAC data from several DPR database sources. In addition to the statewide ESP, individual county profiles are available at [http://www.cdpr.ca.gov/docs/county/enf\\_stat\\_profile.htm](http://www.cdpr.ca.gov/docs/county/enf_stat_profile.htm).

The profiles were developed to look at available data in a different, more comprehensive format. The CACs and DPR may use this information to develop county enforcement work plans, conduct effectiveness evaluations, and to:

- Identify trends and program changes
- Identify CAC staff training needs
- Identify industry outreach needs
- Improve inspection compliance
- Develop inspection targeting programs
- Compare county data to statewide, regional, and/or other counties with similar characteristics

### Trends in Key Enforcement Indicators Over Time

DPR has been collecting inspection compliance data from the counties since 2003/04. As with any new system, the data quality in the first few years was poor. Although it has improved in the last two years, the system lacks sophisticated validations and must rely on data entry instructions and ongoing manual reviews to ensure data quality. DPR will continue to compile basic statistics on the number of violations, violation types and categories, and overall compliance rates.

As noted earlier, DPR adopted the enforcement response regulations in late 2006. These regulations were intended to strengthen environmental enforcement and affect statewide consistency of enforcement responses used by the CACs when acting upon pesticide violations.

DPR and the CACs use the regulations to determine the appropriate type of enforcement response in a given case, which involves a two-step process:

1. Classify the type of violation.
2. Using that classification, determine the appropriate action by following the progressive enforcement required by the regulations.

Unfortunately, we will not see the true impact nor be able to accurately gauge the change in enforcement and compliance rates for several years as it takes a minimum of five years to accurately and effectively measure the results and see long term change.

DPR captures data on enforcement actions once the action is closed and all appeals have been exhausted. It is important to note the county must take an enforcement action for agricultural violations within the two-year statute of limitations. For structural violations, the statute of limitations is one year. In addition, the respondent is entitled to several levels of appeal that may prolong the period of time before the closure of any single case. For these reasons, DPR does not anticipate that it will be able to fully assess the impacts of the enforcement response regulations until 2010 or beyond.

Once fully integrated systems are available in the future, DPR will be able to evaluate violations in relation to pesticide use patterns, correlate enforcement actions with specific illnesses or other investigations, and assess the impacts of regulatory programs. This will allow DPR to refine and focus strategic and operational goals and priorities.

#### Program Inputs

DPR's inspection tracking database was implemented in 2003 and is the vehicle used to evaluate compliance by industry with state, federal, and local pesticide laws, regulations, and permit conditions. Since 2003, new regulations governing volatile organic compounds (VOCs), respiratory protection, structural pest control operations, and protections of ground water have gone into effect. In 2008, the Enforcement Branch, working with DPR's Information Technology Branch, concentrated its efforts on documentation and system design modifications to the inspection tracking database. DPR will begin capturing compliance data on the new requirements in January 2010.

As a result, the process of thoroughly analyzing the data DPR collects in all of its programs in order to assess the impacts of its regulatory programs on compliance and protection of workers, human health, and the environment has been delayed. At this time, DPR has been able to only minimally accomplish the above-stated goals for use of the data.

<b>2008 Enforcement Branch by Location – Staff Resources</b>	
<b>Headquarters</b>	
Branch Chief	1
Supervisors / Program Managers	5 Managers, 20 Staff
<b>Regional Offices</b>	
Northern Regional Office	1 Manager, 10 Staff
Central Regional Office	1 Manager, 12 Staff
Southern Regional Office	1 Manager, 9 Staff
<b>Program Support Resources by Classification</b>	
Environmental Program Manager I/II	3
Agricultural Program Supervisor	1
Senior Environmental Scientist	5
Staff Environmental Scientist	2
Environmental Scientist	27
Program Specialists	12
Senior Special Investigator	1
Pesticide Use Specialist	3
Staff Services Analyst	2
Management Services Technician	1
Office Technician	4

#### Program Outputs

<b>Summary of DPR &amp; CAC Enforcement Program - Outputs</b>	<b>2007</b>	<b>2008</b>
Inspections		
DPR Oversight Inspections (USEPA & State)	290	440
CAC Inspections	18,240	18,480
Total Inspections	18,530	18,920

Program Outcomes

<b>Summary of DPR &amp; CAC Enforcement Program - Outcomes</b>	<b>2007</b>	<b>2008</b>
Administrative Enforcement Actions		
CAC Civil Penalties	\$570,200	\$363,700
DPR Penalties for Unregistered & Misbranded Products		
Number of Cases	117	94
Number of Unregistered Products in Case Settlements	535	583
Penalties Collected	\$1,776,293	\$1,414,191

**California Enforcement Statistical Profiles**

DPR developed a summary of annual statewide CAC pesticide enforcement program statistics. The annual California Enforcement Statistical Profile consolidates CAC data from several DPR database sources. DPR also produced and distributed individual county enforcement statistical profiles.

Included is information showing DPR and California Department of Food and Agriculture (CDFA) funding of the CACs. The profiles do not include county general funds allocated in each county to support the local program. The data used are from fiscal years 2004-2005 through 2006-2007 and are available on DPR's website at: [www.cdpr.ca.gov/docs/county/enf\\_stat\\_profile.htm](http://www.cdpr.ca.gov/docs/county/enf_stat_profile.htm). The profiles consist of the following:

- Annual Statewide Pesticide Enforcement Program Statistics: General statistics about the CAC program drawn from the PRAMR and PUR databases, and funding disbursed by CDFA via the unclaimed gas tax distribution and by DPR via the mill assessment.

This is a three-year side-by-side comparison of several statistics regarding restricted materials permits (such as number of: permits issued, permits denied, multi-year permits, sites, and notices of intent reviewed, assessed and denied), pounds of pesticides used, number of applications, number of inspections and CDFA and DPR funding. This information can be used to identify significant year-to-year reductions or increases that may impact the county's overall pesticide enforcement program.

- Statewide Work Load Distribution by Percent Time: Pie charts showing workload distribution by percentages of time dedicated to various categories of the CAC pesticide enforcement program (PRAMR)

The pie charts show a two-year side-by-side comparison of CAC time spent in eleven different categories of pesticide use enforcement work. This information is used to identify areas where excessive or minimal time is dedicated to specific work categories that may not be appropriate for an individual program. It can also be used to identify significant year-to-year reductions or increases that may impact their overall pesticide enforcement program.

- Statewide Inspection Compliance: Compliance information from the various types of inspections conducted by the CACs and a summary of the number of compliance and enforcement actions taken (Inspection Tracking Database).

These tables list the numbers of inspections and compliance rates for each inspection type the CACs conduct for each year. It also shows the number of criteria out of compliance per inspection, the percentage of inspections with 100 percent compliance, and the number of inspections where one or more violations were found.

The last number on the table can be compared with the number of compliance and enforcement actions taken during the same period, however, the numbers do not correlate directly. Not all compliance and enforcement actions are closed during the fiscal year in which it is initiated. Additionally, some actions may result from the discovery of violations by means other than inspections, such as investigations.

This information can be used to identify areas of particularly low compliance where industry outreach or changes in targeting strategies may be used to improve compliance. Areas of particularly high compliance where DPR's field experience indicates that the compliance rate is not as high, may identify a need to review the CAC's inspections to determine if additional training is appropriate for CAC staff.

As noted elsewhere in this report, DPR is working toward the development of a fully integrated database system. One of the goals is to link and track violations with the immediate corrective action that is taken in the field at the time of the inspection.

- Most Common Violations-Statewide: A listing of the most frequently cited code section violations on CAC inspections (Inspection Tracking)

They can be used to indicate areas where industry outreach and training is most needed.

### Environmental / Health Outcomes

#### *Environmental Indicators (EPIC) to Report on Key Environmental Trends*

The following environmental protection indicators are highlighted in this report since DPR collects, analyzes, and publishes detailed annual reports on these program areas. The annual reports, along with trends analyses, are quite comprehensive. DPR publishes these reports and makes them available on its website.

### **Monitoring Residues in Food**

If pesticides are properly used according to label instructions, there should be no illegal residues on harvested produce. Tolerance levels for pesticide residues on produce are intended to protect against adverse impacts on human health. The presence of illegal residues may indicate improper or illegal pesticide use. Illegal pesticide use can also adversely impact the health of wildlife and sensitive ecosystems.

DPR's state-mandated Pesticide Residue Surveillance Program is the most extensive state monitoring program in the United States. DPR takes and analyzes approximately 3,500 samples of fresh produce annually. DPR samples individual lots of domestic and imported produce and analyzes them for pesticide residues to enforce the tolerances set by the USEPA. Samples are collected throughout the channels of trade, including packing sites, wholesale and retail markets, and farmers markets. Samples are taken to a CDFR laboratory where all are tested with multi-residue screens capable of detecting more than 200 pesticides and breakdown products. In addition, selected samples receive specific analyses for non-screenable pesticides of enforcement concern.

DPR State Residue Program	2006	2007	2008
Total number of samples taken	3,590	3,562	3,483
Number of commodities sampled	90	100	140
Sample origins			
Domestic samples	69.4%	60.8%	55.4%
Imported samples	30.6%	38.7%	43.3%
Undetermined origin samples		0.5%	1.3%
Sample analyses results			
No pesticide residues detected	63.5%	62.6%	70.2%
Residues within legal tolerance levels	35.2%	36.2%	28.7%
Samples with illegal residues	1.3%	1.2%	1.1%

Pesticide Residue Surveillance Program annual reports summarizing the results from samples collected during the calendar year, along with the detailed data, are available from DPR's website at [www.cdpr.ca.gov/docs/enforce/residue/rsmonmnu.htm](http://www.cdpr.ca.gov/docs/enforce/residue/rsmonmnu.htm).

In addition, annual reports of the the data analyzed from samples DPR collects, as well as data collected by other states, under the USDA's PDP and MDP are available from USDA's Agricultural Marketing Services website at [www.ams.usda.gov/AMSV1.0](http://www.ams.usda.gov/AMSV1.0).

### Pesticide Use Trends

Pesticides can increase the quality and production of agriculture and enhances public sanitation (water, food preparation, etc.). However, these benefits are not without risks to human health and the environment. Because pesticides are designed to be toxic to unwanted organisms, there are many public concerns about the widespread use of pesticides and the potential risks they pose to human and environmental health.

DPR analyzes PUR data to provide both an overview of pesticide use in California and, along with information from other sources, some explanations for the trends of pesticide use.

The summary reports of pesticide use by crop and active ingredients for each year provide hundreds of pages of data. Without extensive time consuming analysis, it is difficult to get an overview of the most used pesticides or most heavily treated crops and how the uses of these pesticides have changed over the years.

These data are studied in detail and analyzed in a number of different ways to help us understand some of the reasons for the patterns and trends in pesticide use. These kinds of analyses can help granting agencies understand where efforts to promote reduced-risk pest management strategies are succeeding or failing, help researchers better identify emerging challenges and direct research attention to finding solutions, help regulators arrive at realistic policy decisions that are both environmentally and economically sound, and help the public understand why certain practices are used. The most recent trends analysis summarizes pesticide use from 1996 through 2007 for eight different pesticide categories according to certain characteristics including:

- Reproductive toxins
- Carcinogens
- Insecticide organophosphate and carbamate chemicals
- All chemicals categorized as ground water contaminants

- Chemicals categorized as toxic air contaminants
- Fumigant chemicals
- Oil pesticides which include many different chemicals, but the category used here includes only ones derived from petroleum distillation. Some of these oils may be on the State’s Proposition 65 list of chemicals “known to cause cancer” but most serve as alternatives to high-toxicity pesticides. Oils are also used by organic growers.
- Biopesticides that include microorganisms and naturally occurring compounds, or compounds essentially identical to naturally occurring compounds that are not toxic to the target pest (such as pheromones).

For more detailed information on pesticide use and trends, annual analyses are available on DPR’s website at [www.cdpr.ca.gov/docs/pur/pur97rep/pur\\_anal.htm](http://www.cdpr.ca.gov/docs/pur/pur97rep/pur_anal.htm). See pages 133 and 135 for 2007 and 2008 summary pesticide use data in agricultural and structural use settings.

### Tracking Pesticide Illness

Pesticides have been associated with adverse effects on human health. Given the nature of their contact with pesticides, agricultural and pest control workers are most likely to face exposure to pesticides. The public may be exposed to pesticides in water, soil and air due to misuse or drift from sprayed areas. Consumers may face exposure from home-use pesticides, or to pesticide residues in food. Unacceptable risks may be avoided when pesticides are used properly, and when pesticide laws and regulations are enforced vigorously and consistently.

The Pesticide Illness Surveillance Program (PISP) maintains a database of pesticide-related illnesses and injuries. Reports come in from local health officers who receive reports from physicians via workers’ compensation records, and from the California Poison Control System. The local CAC investigates circumstances of exposure. Medical records and investigative findings are then evaluated by DPR technical experts and entered into an illness registry. This data helps validate the effectiveness of exposure control measures and identifies areas where improvements are needed. Analyses of trends in illness and injury produced by a particular pesticide or activity also provides direction for the Exposure Monitoring Program, Industrial Hygiene Program, and Exposure Assessment and Mitigation Program.

The following is a summary of California pesticide illnesses reported by setting (agricultural and non-agricultural) and by type of pesticide (antimicrobials and all other pesticides).

Year	Agricultural Pesticide Use Exposure		Non-Agricultural Pesticide Use Exposure		Total Incidents
	Pesticides Other Than Antimicrobials	Antimicrobial Pesticides	Pesticides Other Than Antimicrobials	Antimicrobial Pesticides	
2008 <sup>1</sup>					
2007	207	11	292	372	982
2006	218	4	68	148	438

<sup>1</sup>Data is unavailable.

Annual reports are prepared from the PISP database and summarize illness data by:

- State and county
- Type of illness and type of pesticide
- Type of activity and type of exposure

Specific pesticide and type of illness

- Occupational status and location of incident
- Gender, age distribution, type of pesticide and type of use
- Pesticide handler activity (applicator, mixer/loader, flagger, etc.)

Annual reports dating from 1996 to 2007 that provide detailed information can be obtained from DPR's website at [www.cdpr.ca.gov/docs/whs/pisp.htm](http://www.cdpr.ca.gov/docs/whs/pisp.htm)

## Ecological Health

Pesticides are designed to be toxic to target pests. While their use instructions are intended to prevent adverse impacts on non-target species, including wildlife, there have been instances when pesticide use has been linked to adverse impacts on birds, bees, and other non-target species. The following is a three-year summary by priority incidents involving potential pesticide use affecting California wildlife:

Year	Fish	Bird	Wild Animals	Domesticated Animals/Bees
2008	36-CAK0-08 2,000 Fish Civil penalty action taken and fined paid.  69-SCR-08 49 Fish Notice of warning issued to lodge/restaurant owner	55-MON-08 70 Geese No violations found. No action taken.		
2007	57-CC-07 500 Fish (unconfirmed #) Civil penalty action pending	35-SBD-07 11 Geese Civil penalty action pending	3-STA-07 1 Coyote, 1 Raccoon Veterinarian determined malnutrition as cause of death. No action taken.	3-STA-07 10 Cows Veterinarian determined malnutrition as cause of death. No action taken.
2006		3-TUO-06 50 Birds; 5 Birds-Threatened Responsible individual and label violation could not be determined. No action taken.		18-KER-06 Bees (Unknown Total)

## C) Program Limitations

Each of the data systems discussed in this report is an independent data system. It is difficult to link data from one system to another. These systems are outdated and lack sophisticated validation to assure data quality and integrity. In addition, other DPR programs collect data on priority investigations, illnesses, ground and air monitoring studies, and endangered species. Further, DPR does not have the ability to receive CAC workload, inspections, and enforcement action data electronically from the counties.

DPR and CAC workload and standard enforcement and compliance reports are based on the fiscal year. (Exceptions to this are the annual pesticide use, residue, and pesticide illness surveillance reports.) This annual Enforcement Report is based on the calendar year. Comparisons of data in this report with standard DPR workload and enforcement and compliance reports and data posted to the DPR website will be difficult if not impossible to reconcile.

As noted earlier, much of the data presented in this report for the 2008 calendar year is preliminary due to lag times in reporting and compiling data. In addition, many of DPR's reports are compiled on a fiscal year basis, leading to discrepancies between data in this Cal/EPA Enforcement Report and other DPR reports. DPR will address more timely reporting, collection and processing of data in the coming years.

In the case of the pesticide use reporting system, specific geographic location data are limited by the type of agriculture that is being reported. For example, the geographic location of right-of-way sites is reported at the county level while crops or other production agricultural sites are reported at the section level. A section is generally one square mile in area. In many cases, a section is too large for truly accurate assessments of environmental impacts. For example, it is not possible to determine the amount of pesticide used within a certain number of feet of a specific site due to the size of the reporting unit. Further, soil types may vary significantly within the square mile and thus the potential of pesticides to runoff or leach to groundwater varies accordingly. However, because the exact locations of applications are reported, pesticide regulations must be designed so that every circumstance presented in the entire section is protected.

In the next two to five years, the Enforcement and Worker Health and Safety branches will develop an application to bridge existing databases (inspection, pesticide illness surveillance database, enforcement action database, and residue databases) that currently exist independently. These databases are used to evaluate county performance and compliance trends, residue and exposure to pesticides, implementation of the state worker safety regulations and provide input on changes to the federal worker protection standard.

To address these data management issues, DPR is undertaking an internal review and analysis of these systems, interrelationships, and functionality to develop a conceptual design. This will set the foundation to build a fully integrated pesticide regulatory data management system in the future that can improve the overall assessment of DPR programs and their effectiveness in protecting human health, food safety, and the environment. This effort is anticipated to take three to five years before we begin the actual system development.

DPR has not integrated and analyzed data from these various sources to fully assess the impacts of its programs to improve environmental and human health. In 2007, the Enforcement Branch redirected resources and upgraded positions to begin the process of bringing these systems together to develop an integrated approach to analyzing compliance. DPR is concentrating its efforts in 2008 on developing sound scientific and statistical procedures and methods to begin the process of fully assessing its programs and their overall impact on improving human health, food safety, and the environment.

### **III. WHAT ARE WE GOING TO DO: FUTURE DIRECTIONS**

DPR and the CACs have undertaken a joint project to assess a number of issues that have been identified over the last two years related to processes and data collection. The work group held its first meeting in April 2008 and is focusing its efforts on three areas:

- All planning, reporting, and evaluation activities and deliverables are currently conducted between the County and DPR on a fiscal year basis during a four-month period (June-September). This does not allow for thorough and timely input and dialog between the County and DPR and the deliverables are delayed. The work group addressed this issue in 2008 by revising the schedules for DPR's evaluation of county performance and the CACs' development of county work plans. Evaluations are now due September 30 and county work plans are developed for the following calendar year. This should allow sufficient time for collection, analyses and incorporation of key data and findings.

- Discrepancies in reporting various data became evident during a project requested by some CACs to summarize received and approved/denied decision reports [required by the Enforcement Response Regulations (ERR) when a prescribed enforcement action is not taken]. DPR and the CACs are evaluating potential sources of these discrepancies. Work on this issue will continue into 2009.
- The current method of categorizing workload (PRAMR) does not accurately reflect changes in workload resulting from the implementation of the ERR. For example, counties currently report the number of enforcement actions closed during a given month. However, the workload and hours associated with follow up inspections, case file preparation, decision report and Notice of Proposed Action (NOPA) report writing cannot be directly associated with these specific activities. In addition, the number of hearings requested are not tracked or reported, nor are the hours associated with these activities.

As noted earlier, new senior level Enforcement Branch staff is in the process of gaining more in-depth knowledge and expertise about state-county regulatory mandates, workload, and data systems. We expect that in the future, we will be able to more fully analyze and evaluate the impacts our regulatory programs have on industry compliance and their impact on improving environmental and human health protections. DPR will be able to answer questions such as:

- Relative to pesticide laws and regulations, i.e., are overall compliance rates improving?
- Relative to specific programs, i.e., have the new respiratory protection regulations reduced the number of pesticide-related illnesses for agricultural workers?
- Have fines increased as a result of the enforcement response regulations and the increased fine level authority?
- Have the number of repeat violators increased/decreased as a result of the enforcement response regulations?
- Have we reduced VOC emissions to reduce smog as a result of restrictions required to use low emission fumigation methods and/or change agricultural practices?
- Are there geographic differences in compliance in general and in specific categories of violations?

In conclusion, DPR has matured in its data gathering capability. In the coming years, we strive to better interpret our data and use it to convey DPR's effectiveness in protecting public health and the environment.

# # #

## LIST OF ACRONYMS

Acronym	Full Name
AB	Assembly Bill
CAC	County Agricultural Commissioner
CACASA	County Agricultural Commissioners and Sealers Association
CDFA	California Department of Food and Agriculture
DFG	California Department of Fish and Game
DPH	California Department of Public Health
DPR	California Department of Pesticide Regulation
EPA	Environmental Protection Agency
EBL	Enforcement Branch Liaison
EPIC	Environmental Indicators for California
ERR	Enforcement Response Regulations
ETEC	enterotoxigenic E. coli
FAC	Food and Agricultural Code
HCP	Health Care Professionals
ISESALUD	Instituto de Salud Publica del Estado de Baja California
MDP	Microbiological Data Program (USDA)
MOU	Memorandum of Understanding
PDP	Pesticide Data Program
PISP	Pesticide Illness Surveillance Program
PRAMR	Pesticide Regulatory Activities Monthly Report
PUR	Pesticide Use Report
SB	Senate Bill
SPCB	Structural Pest Control Board
STEC	shiga toxin producing E. coli
USEPA	United States Environmental Protection Agency
USDA	United States Department of Agriculture
VOC	Volatile Organic Compound