DEPARTMENT OF PESTICIDE REGULATION'S COMPLIANCE ASSESSMENT SUPPLEMENTAL REPORT OF THE 2002 BUDGET ACT

EXECUTIVE SUMMARY

The State Legislature included language in the Supplemental Report of the 2002 Budget Act directing the Department of Pesticide Regulation (DPR) to provide specific information about DPR's local oversight programs, industry compliance assessment, and local pesticide regulatory program priorities and performance measures for fiscal year (FY) 2002/03.

Within the past few years, DPR completed three major initiatives that incorporated a continuous improvement cycle into state and local pesticide regulatory programs. By 2000, DPR implemented the data-driven statewide prioritization plan (PP) and county negotiated work plan (NWP). These new tools allowed DPR and the county agricultural commissioners (CACs) to document priority pesticide regulatory goals and the strategies used to meet these goals. The compliance assessment survey, completed in 2001, provided an additional data source for the PP and NWP processes by allowing DPR and the CACs to identify areas of unacceptably low compliance with worker safety requirements and develop appropriate regulatory responses. DPR radically changed the effectiveness evaluation of the local pesticide regulatory programs to:

- Focus on the quality of work performed by the CACs rather than the quantity.
- Incorporate joint accountability for local program improvement.
- Provide the public with transparent and comprehensive information about program strengths and deficiencies.

During FY 2002/03, DPR concentrated on promoting compliance with pesticide safety laws and regulations through its local program oversight and industry outreach activities. Our current statewide PP focuses regulatory efforts on improving industry compliance with worker and environmental safety regulations, and on reducing the number of serious pesticide drift incidents. Through the negotiation process, DPR assured that the CAC's 2002/03 NWPs balanced statewide priorities with local conditions unique to each county. In general, NWPs align with DPR's goal of compliance improvement, to produce measurable results, and respect existing county resources. In support of these goals, DPR produced ten new industry outreach brochures aimed at improving employer compliance with worker safety regulations, and updated several pesticide regulatory guidance documents covering pesticide inspection procedures and the appropriate application of enforcement and compliance actions to correct compliance problems.

In response to budget reductions and changes to the effectiveness evaluation, DPR combined three long-standing inspection activities into one comprehensive program that allows DPR to simultaneously evaluate industry compliance, assess CAC program effectiveness, and meet federal cooperative agreement field activity goals. DPR also upgraded the inspection-tracking database to accommodate changes to the new joint DPR/CAC Oversight Inspection Program and

allow for more robust analysis of statewide compliance rates. During FY 2002/03, DPR expects to complete approximately 400 inspections under the new program guidelines, with over half devoted to reassessing agricultural employer compliance in four counties with historically low compliance rates. To date, DPR staff have conducted 313 inspections of agricultural pesticide handler and field worker safety, employer use and training records, and field fumigation. Of this total, 125 inspections are still in progress, 121 inspections are complete and pending management review, and 67 have been entered into the DPR database. Although there is not yet enough data to validate trends, our preliminary analysis indicates potential improvements in employer compliance with worker safety requirements. The available information also suggests that CACs interpretation and documentation of compliance inspections closely match the procedural guidance provided by DPR.

Between July 1, 2002, and March 31, 2003, DPR expended approximately seven percent of the total Enforcement Branch FY 2002/03 budget on developing and implementing the new DPR/CAC Oversight Inspection Program and related pesticide regulatory program improvements. In terms of Enforcement Branch staff resources, program management allocated 8.5 personnel years (PYs) to the development and implementation of this program, which represents about 15 percent of the 58 filled positions. Of this total, DPR expended almost 2 PYs on the development of the new Oversight Inspection Program, 2.7 PYs on database upgrades and key data entry, and 2.7 PYs conducting inspections and completing follow up activities.

DIRECTIVES OF THE STATE LEGISLATURE

The State Legislature included language in the Supplemental Report of the 2002 Budget Act directing DPR to provide information about county oversight, industry compliance assessment, statewide priorities for local programs, and performance measurements. This report responds to the Legislature's request by providing information about:

- DPR's 2002/03 statewide priorities established for CACs in the pesticide regulatory program (Attachment 1).

- Permitting, enforcement, and compliance performance measures established by DPR for the CACs 2002/03 pesticide regulatory activities (Attachments 1 and 2).

- DPR's compliance assessment results, by county, for the counties assessed in the 1997-2000 survey (Attachment 3, and Tables 1 and 3 in this report).

- Available results of joint DPR/CAC oversight inspections conducted between July 1, 2002, and March 31, 2003 (Tables 2, 3, and 4 in this report).

- The approximate percentage of enforcement resources utilized to implement the joint DPR/CAC Oversight Inspection Program (Attachment 5).

- Additional information relevant to DPR's efforts to improve compliance throughout the regulated community and pesticide regulatory program effectiveness, including:

- DPR's new program for evaluating county performance (Attachment 4).
- Recent upgrades to the DPR/CAC inspection program and the database used to track inspection results.
- New industry outreach materials focused on specific worker safety requirements with historically low employer compliance (Attachments 6 and 7).
- Updated instructional materials for CACs, including inspection procedures, enforcement guidelines, and reference information about the CAC's authority to take actions against violators.

PERFORMANCE MEASUREMENT AND COMPLIANCE ASSESSMENT INITIATIVES

During the past few years, DPR concentrated on completing three major initiatives that allowed the Department to incorporate a continuous improvement cycle into local and statewide pesticide regulatory programs.

State and Local Priority Workload Planning

Between 1998 and 2000, DPR and the CACs radically changed the manner by which state and local priorities were developed and communicated. Instead of relying on simple numeric targets for certain activities, the new statewide PP and county NWP required DPR and the CACs to identify and measure program goals through the analysis of performance indicators such as pesticide illness, compliance levels, and civil penalty actions (Attachments 1 and 2). Concurrent changes to county disbursement regulations also created financial incentives for CACs to conduct a broader range of enforcement and outreach activities to address identified problem areas.

Compliance Assessment Survey of Agricultural Workers

By 2001, DPR completed an assessment of pesticide handler and field-worker compliance with California's pesticide laws and regulations in agricultural production settings (Attachment 3). The survey took nearly four years to complete and covered 21 counties throughout the state. Information obtained during the survey indicated that industry compliance fell below acceptable levels for many key pesticide use and field-worker safety regulations. At the conclusion of each county survey and continuing to the present, DPR and the CACs used these results to develop strategies aimed at improving local compliance profiles.

Improved State Evaluation of County Pesticide Regulatory Program

In June 2002, DPR promulgated new effectiveness evaluation regulations that changed how we measure the effectiveness of the CAC's pesticide regulatory programs (Attachment 4). By December 2002, DPR issued the updated "Director's Essential Program Elements Manual" [1] which provides the framework for annual evaluation. Changes to this program included tracking

[1] The "Director's Essential Program Elements" is a 31-page manual that describes the structure and format of the annual effectiveness evaluation conducted in each county by DPR. Attachment 3 does not include the full manual. As an example, DPR provided the cover page which shows the elements recognized by the Director as being necessary to an effective local pesticide regulatory program and one program element. The full manual is available from DPR.

the changes to PP and NWP by focusing on the quality and effect of the regulatory activities conducted by CACs, rather than on the amount. The new evaluation is an ongoing process that relies on a very high degree of interaction between DPR and the CACs including oversight inspections, office interviews, and other hands-on activities. DPR changed the evaluation report from a simple "check box" format to a detailed narrative that provides a full account of the strengths and weaknesses of the local pesticide regulatory program. The new regulations require DPR to work with CACs to jointly develop corrective actions to address local program deficiencies. The new regulation allows the Director to take stringent actions when a local program fails to implement the agreed-upon corrective actions, including significant funding reductions. As with the PP and NWP, these amendments were developed by DPR and CAC staff and management.

IMPLEMENTING CONTINUOUS IMPROVEMENT – RECENT ACCOMPLISHMENTS

DPR promotes compliance with pesticide safety laws and regulations through local program oversight and industry outreach activities. Recent accomplishments include:

Targeting Worker Safety Compliance Problems Through Prioritization Planning

DPR's 2002/03 PP focused state and local regulatory efforts on improving industry compliance with worker and environmental safety regulations and on reducing the number of pesticide drift incidents (Attachment 1). The following information was used in the development of this plan: the 1997-2001 compliance assessment survey (Attachment 3, and Table 1 in this report), the joint DPR/CAC Oversight Inspection Program, the Pesticide Illness Investigation Program, the compliance/enforcement action tracking database, the Pesticide Regulatory Activities Annual Report, and the annual county effectiveness evaluations conducted by DPR staff.

The current plan directed CACs to target their enforcement and outreach activities toward known violators, as identified through state and local inspection results, and industry sectors with historically low compliance. During FY 2002/03, DPR focused staff resources on resurveying industry compliance in counties with historically low compliance rates, providing training targeted at improving CAC inspections, investigations and enforcement actions, updating and improving regulatory instructional manuals relied upon by CAC and DPR staff, and providing better outreach materials for the regulated public.

Coordinating Local and Statewide Compliance Goals through NWPs

The CACs' 2002/03 NWPs and focused activities balance statewide priorities with local issues faced in individual counties (Attachment 2). Before identifying local priority activities and performance measures, the CACs review the results of their recent regulatory activities (including inspections, investigations, and enforcement actions), the statewide PP, and county resource levels. DPR negotiates the proposed work plan and focused activities with the CAC to assure that the proposal aligns with DPR's goal of compliance improvement, will produce measurable work products, and can be completed within existing county resources.

The CACs expend a majority of their resources on "required" pesticide regulatory activities including permitting, applicator certification and registration, pesticide illness and environmental effects investigations, pesticide use reporting, neutral scheme inspections, and program

administration. NWPs do not detail "required" work activities; they document the priority activities that will be conducted with the remaining resources. The NWP focuses "elective" staff resources on selected priority activities and allows the CACs to measure progress towards defined goals.

Implementing a New, Efficient DPR/CAC Oversight Inspection Program

DPR implemented the new Oversight Inspection Program in the fall of 2002. Budget reductions and changes to the effectiveness evaluation prompted DPR to combine three inspection programs (industry compliance assessment, CAC overview training assessment, and U.S. Environmental Protection Agency follow-up activities) into a single, comprehensive inspection program. The new program allows DPR to efficiently acquire information essential to evaluate industry compliance, CAC program effectiveness, state and local priorities, program improvements, and resource allocation.

Working closely with CACs, DPR produced a working manual, standardized forms, a staff-training program, and an annual work plan. The new process requires DPR staff to independently complete a standard inspection form and a "County Oversight Summary" form; collect a copy of the CAC staff's signed, unchanged inspection form; conduct a side-by-side comparison of inspection results, discuss any discrepancies; and provide feedback to the commissioner regarding CAC staff conduct and training needs. Disputes over the enforcement of pesticide laws, regulations, and state policies are now resolved through a formal issue review process. The result of each completed overview inspection are now entered into DPR's new inspection tracking database, which allows the Department to analyze both industry compliance and CAC effectiveness.

During FY 2002/03, DPR plans to complete approximately 400 joint DPR/CAC overview inspections. Of this total, 200 inspections will be focused on reassessing agricultural employer compliance in Merced, San Joaquin, Sutter, and Tulare—the counties identified with unacceptably low compliance rates in the 1997-2001 compliance assessment survey. The remaining inspections will take place throughout the state under a neutral-scheme inspection plan and will reflect the variations in pesticide use between counties and geographic regions. To date, DPR staff conducted 313 joint oversight inspections with CAC staff. Presently, 125 inspections are undergoing review and follow-up with the individual CACs, 121 are awaiting final review and data entry, and 67 have been approved and entered into the inspection-tracking database (Table 2 in this report).

Improving Access to Statewide Compliance Information through Database Upgrades

DPR's strategic goals include regulating pesticide use so that no socioeconomic group in California is disproportionately impacted. We expect to meet this goal by identifying and improving industry compliance with pesticide regulatory requirements and enhancing the effectiveness of our state and local inspection program. To that end, DPR allocated significant resources to the creation of a data collection system that enables us to compile and analyze inspection information generated by DPR's oversight activities and the CAC's inspection program. Local inspection activities, being much broader in scope and number than DPR's compliance assessment and oversight activities, provide a comprehensive source of compliance

information that, until recently, went untapped. By bringing DPR and CAC inspection results together in one database, DPR can simultaneously assess industry compliance and CAC effectiveness, and help CACs develop effective improvement strategies.

Originally, the system collected only agricultural handler and field-worker safety inspections conducted by CACs. During FY 2002/03, DPR upgraded the system to allow the collection of the joint DPR/CAC oversight inspections and agricultural fumigation and employer pesticide records inspections conducted by CACs. To date, the database currently contains compliance information of almost 2,900 agricultural handler, field-worker, fumigation, and employer records inspections[2]. This total includes the results from 134 joint DPR/CAC oversight inspections (or 67 paired inspections, results shown in the following section). Recent upgrades to the database allow DPR to provide CACs with quarterly inspection summary reports for their county; analyze compliance trends by various user types, geographic regions, use settings, or regulatory requirement; track CAC responses to identified violations; and identify local program deficiencies. This pilot program is scheduled to run through June 2004. Depending on resource availability and the value of this information, DPR may consider expanding this program to include the nonagricultural inspections.

New Outreach Materials Targeted at Improving Industry Compliance

Over the last year, DPR developed outreach materials targeted at improving industry compliance with worker safety regulations. The new outreach materials include:

- Overview brochures (Attachment 6):
  - ✓ *It's as simple as PPE (Please Protect Employees)*
  - ✓ *What to say before you spray*
  - ✓ *Pesticide Safety: It's the Law*
- Specific compliance assistance pamphlets:
  - ✓ *Pesticide Training Verification Program: for Field Worker Employees*
  - ✓ *Pesticide Safety Training: for Employees Handling Pesticides*
  - ✓ *Pesticide Safety Training: for Field Worker-Employees Working in Treated Fields*
  - ✓ *Pesticide Worker Safety Regulations: Employer Responsibilities*
  - ✓ *Pesticide Emergency Medical Care: Employer Responsibilities*
  - ✓ *Display of Required Information: Employer Responsibilities*
  - ✓ *Pesticide Decontamination Facilities: Employer Responsibilities*
  - ✓ *Pesticide Personal Protective Equipment: Employer Responsibilities*

Updated Guidance Materials Provided to the CACs

In addition to the new Oversight Inspection Program, the PP, and suggested statewide focused activities, DPR also updated procedural documents that provide the CACs guidance on conducting pesticide-related inspections and correcting compliance problems through the appropriate use of enforcement and compliance actions. Due to length or format, these documents have not been attached but are available on DPR's Web site at <www.cdpr.ca.gov>.

[2] During fiscal year 2000/01, the CACs conducted over 40,000 pesticide-related inspections. Agricultural handler, field-worker, field fumigation, and employer records inspections accounted for nearly 21,000 inspections. (Amended 2000/2001 Pesticide Regulatory Activities Summary, June 26, 2002.)

- Inspection Procedures. These procedures contain recent updates to the manual and standardized forms which incorporate new regulations and DPR policies, and connect the Oversight Inspection Program to the annual effectiveness evaluation. The standardized forms were revised to improve consistency between inspection types, allow better documentation of inspector observations, and facilitate data entry for the new inspection tracking system.

- Enforcement Guidelines. These guidelines were developed jointly by DPR and the CACs. They provide a framework for uniform, predictable, and fair enforcement responses that the regulated community and the public can understand. This document also provides a standard by which DPR can evaluate the CAC's local enforcement program.

- Citable Sections. These sections are contained in a reference document that identifies the laws or regulations citable by pesticide regulatory staff in enforcement and compliance actions.

- Regulatory Toolbox. This is a laminated quick reference tool for inspectors, biologists, and regional office staff. It covers their authority to regulate, and explains the appropriate application of penalty or compliance actions.

- Enforcement and Compliance Options Chart and Poster. These are compliance assistance tools to explain the CAC's authority to take action against violators to the regulated community.

COMPLIANCE ASSESSMENT AND JOINT CAC/DPR OVERSIGHT INSPECTION RESULTS

Compliance Assessment Survey Results by County, 1997-2001

Between June 1997 and March 2001, DPR assessed agricultural employers' compliance with pesticide safety requirements (Attachment 3). Average compliance ranged from the high 80s in San Luis Obispo, Santa Barbara, and Santa Cruz counties to the low 60s and 50s in Merced and Sutter counties respectively (Table 1).

DPR and the CACs used the survey results to measure the effectiveness of the statewide pesticide use enforcement program and direct improvement efforts to the areas of greatest need. During the survey, DPR staff conducted 813 observations of agricultural pesticide handlers and field-workers performing a variety of pesticide-related activities. The 21 participating counties were selected due to the size and diversity of their agricultural industries. DPR staff spent approximately two weeks in each county over one 14-day period or two 7-day periods. The survey results provided a general assessment of compliance trends among agricultural employers and between counties. At the conclusion of each county survey, DPR shared the results with the CAC and, where needed, immediately allocated DPR staff resources to helping CACs develop and implement compliance improvement strategies.

Table 1. 1997-2001 Compliance Assessment Survey Results by County

County	*Pesticide Handler Survey*		*Field-worker Survey*	
	% Compliance	*Total Inspections*	*% Compliance*	*Total Inspections*
Colusa	81.3%	34	78.6%	6
Fresno	72.4%	17	68.4%	10
Imperial	82.0%	27	80.7%	17
Kern	73.5%	50	71.0%	9
Kings	75.7%	18	61.2%	14
Merced	71.5%	25	51.3%	6
Monterey	87.2%	34	78.7%	15
Napa	69.2%	5	76.3%	5
Riverside	75.6%	13	75.3%	12
Sacramento	72.8%	51	86.7%	12
San Diego	93.1%	14	N/A	0
San Joaquin	58.3%	31	74.3%	12
San Luis Obispo	91.4%	22	84.1%	20
Santa Barbara	93.0%	23	80.3%	21
Santa Cruz	91.4%	30	85.7%	19
Solano	71.7%	21	81.3%	16
Sonoma	67.9%	6	72.1%	9
Stanislaus	61.0%	34	71.4%	5
Sutter	54.1%	41	52.8%	12
Tulare	57.0%	44	74.1%	11
Ventura	82.5%	29	79.1%	13
Avg. Compliance/ Tot. Inspections	75.4%	569	74.2%	244

Joint DPR/CAC Oversight Inspection Results, July 2002 – March 2003

DPR staff observed compliance rates that ranged from 33 percent for one field-worker safety inspection, to 100 percent for all field fumigation inspections conducted (Table 2).

Between July 2002 and March 2003, DPR and CAC staff conducted 313 joint oversight inspections of agricultural pesticide use, field fumigation, and field-worker activities. Due to resource constraints[3], the inspection tracking database contains the results from only 67 out of 188 completed joint DPR/CAC oversight inspections. While the available data are inadequate to identify and validate compliance trends, we anticipate being able to conduct a robust analysis following completion of our 2002/03-oversight inspection work plan.

[3] Staff responsible for inspection tracking system data entry review all incoming "solo" CAC inspections as well as the paired joint DPR/CAC oversight inspections. As part of the pilot program, DPR will assess the opportunities for administrative improvements in addition to data quality control.

Table 2. DPR Oversight Inspection Results by County

County	*Pesticide Use Monitoring Inspections*		*Field-worker Safety Inspections*		*Fumigation Use Monitoring Inspections*	
	% Compliance	*Total Inspections*	*% Compliance*	*Total Inspections*	*% Compliance*	*Total Inspections*
Merced	87.2	6	86.0	9	100	2
Riverside	94.8	5	33.3	1	N/A	0
San Joaquin	78.1	2	74.1	10	100	1
Sutter	94.1	1	73.1	8	N/A	0
Tulare	81.9	13	83.3	1	100	3
Ventura	85.7	3	91.7	2	N/A	0
Total inspections		30		31		6

Comparison of Past and Current Compliance Survey Results

When compared to the 1997-2001 compliance assessment survey results, data from the current oversight inspections suggest that industry compliance with pesticide worker safety requirements may be improving (Table 3). However, due to the small number of current inspections available for analysis, it is not yet possible to validate this observation. DPR expects to be able to make a more robust comparison at the end of FY 2002/03 when all completed oversight inspections have been entered into the database.

Significant differences between past and current data collection methods also complicate this comparison. To adjust for these differences, the past and current "% Compliance" results were based on the inspection elements that were common to both methods. This effectively reduces the number of data points analyzed, which increases the error and uncertainty associated with the result.

Table 3. Comparison of Past and Current Compliance Assessment Survey Results

County	*Pesticide Handler Inspections*		*Field-worker Safety Inspections*	
	Past % Compliance	*Current % Compliance*	*Past % Compliance*	*Current % Compliance*
Merced	60.9	72.2	51.4	84.0
Riverside	74.1	93.0	72.6	33.3*
San Joaquin	60.2	75.0*	70.3	73.1
Sutter	53.7	88.9*	52.8	72.9
Tulare	62.4	69.0	74.1	83.3*
Ventura	81.8	73.0*	75.6	91.7*
Avg. Inspections / County	31	5	11	5

* Percent compliance based on the results of 1 to 3 inspections.

Comparison of DPR and CAC Joint Oversight Inspection Results

Although this comparison is based on a very limited number of inspections (Table 2 in this report), there appears to be little difference between state and local interpretation and documentation of regulatory requirements during the joint inspection exercises (Table 4 in this report).

Prior to the implementation of the new program last fall, DPR staff would either take the lead or conduct the inspection with CAC staff. Under the new program, CAC staff conduct the inspection with no input, discussion, or direction from DPR staff. During the inspection, both parties independently record their results on DPR-issued inspection reports. At the conclusion of the inspection, CAC and DPR staff exchange signed copies of their inspection reports and compare the results. The level of agreement or discrepancy between the results helps DPR determine the most appropriate future oversight activities for that county, including training, additional inspections, or management intervention. The paired inspection reports are then entered into DPR's inspection tracking database for future analysis.

Table 4: Comparison of DPR and CAC Joint Oversight Inspection Results

County	*Pesticide Use Monitoring Inspection*		*Field-worker Safety Inspection*	
	CAC % Compliance	DPR % Compliance	CAC % Compliance	CAC % Compliance
Merced	87.9	87.2	84.5	86.0
Riverside	94.8	94.8	33.3	33.3
San Joaquin	78.8	78.1	74.5	74.1
Sutter	94.4	94.1	70.0	73.1
Tulare	83.0	81.9	80.0	83.3
Ventura	87.0	85.7	91.7	91.7

Enforcement Branch Resources Expended Between July 1, 2002, and March 31, 2003

DPR expended approximately 7.3 percent of the total Enforcement Branch FY 2002/03 budget on developing and implementing the new Oversight Inspection Program and associated program improvements (Table 5 in this report). Enforcement Branch management allocated almost 15 percent of available enforcement staff resources to this program (8.5 PYs out of approximately 58 filled positions). Development included the production of a new procedural manual and associated forms, which required extensive CAC input and DPR staff training. Implementation included 313 joint DPR/CAC inspections and follow-up activities, data entry and analysis, and tracking system upgrades and maintenance. Due to the changes in the DPR/CAC Oversight Inspection Program and the inspection tracking database, DPR needed to implement improvements to the current pesticide use inspection program followed by CACs to assure continuity and consistency between the three program elements. For a detailed breakdown of Enforcement Branch activities and associated expenditures for this time period, refer to Attachment 5.

Table 5. Resources Expended on CAC Oversight Program from July 2002 through March 2003

Activity	*PY*	*Cost*	*% Of Enforcement Branch Resources*
Implement New DPR/CAC Oversight Inspection Program	1.88	$149,995.30	1.83%
Conduct Joint DPR/CAC Oversight Inspections 188 completed 125 in progress	2.67	$209,473.22	2.56%
Upgrade and Implement Inspection Tracking Database	2.67	$136,651.51	1.67%
Associated Regulatory Program Improvements	1.27	$102,895.14	1.26%
Total	8.48	$599,015.17	7.31%

Attachments:

Attachment 1: 2002/03 Prioritization Plan and Negotiated Work Plan (ENF 02-20, 5/20/02)
Attachment 2: Merced and San Joaquin Counties Negotiated Work Plans Fiscal Year 2002/03
Attachment 3: Compliance Assessment Report – Executive Summary (ENF 01-43, 9/28/01)
Attachment 4: New Procedures for County Effectiveness Evaluations for Fiscal Year 2002/03 (includes a copy of the new regulations and one element from the Director's Essential Program Element [Executive Office #02-03, 12/2/02]).
Attachment 5: Detailed Enforcement Branch Expenditures
Attachment 6: Overview Brochures (3)
Attachment 7: Compliance Assistance Pamphlets (8)