

Date of Hearing: March 25, 2025

ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS

Damon Connolly, Chair

AB 1440 (Committee on Environmental Safety and Toxic Materials) – As Introduced February 21, 2025

**SUBJECT:** Pesticide testing

**SUMMARY:** Extends the sunset, from January 1, 2027, to January 1, 2029, on the data reporting and medical supervisor registration requirements of the agricultural pesticide worker protection program known as the California Medical Supervision Program (Program).

**EXISTING LAW:**

- 1) Requires each employer who has an employee who regularly handles Toxicity Category 1 or 2 organophosphate or carbamate pesticides (OP/CB pesticides) to contract, as specified, with a physician registered as a medical supervisor with the Office of Environmental Health Hazard Assessment (OEHHA) to provide medical supervision of the employee. (California Code of Regulations (CCR), Title 3, § 6728 (b))
- 2) Delineates the employer's responsibilities for medical supervision for employees who regularly handle OP/CB pesticides, including requiring baseline cholinesterase tests and follow-up tests after the employee has handled OP/CB pesticides, as specified. Requires the employer to follow the recommendations of the medical supervisor concerning matters of occupational health. (CCR, Title 3, § 6728 (c))
- 3) Requires an employer to investigate the work practices of any employee whose cholinesterase level falls below 80% of the baseline, and remove an employee from exposure to OP/CB pesticides if the employee's cholinesterase level falls below 60% or less of the baseline. (CCR, Title 3, § 6728 (d - e))
- 4) Requires any physician and surgeon who knows, or has reasonable cause to believe, that a patient is suffering from pesticide poisoning or any disease or condition caused by a pesticide to promptly report that fact to the local health officer. (Health and Safety Code (HSC) § 105200)
- 5) Requires an employer, in order to satisfy his or her responsibilities for medical supervision of his or her employees who regularly handle OP/CB pesticides, to contract with a medical supervisor registered with OEHHA. (HSC § 105206 (a))
- 6) Requires a laboratory that performs tests ordered by a medical supervisor to report specified information, including cholinesterase test results, to the Department of Pesticide Regulation (DPR), which then shares this information with OEHHA and the State Department of Public Health (DPH). (HSC § 105206 (b))
- 7) Requires OEHHA to establish a procedure for registering and deregistering medical supervisors for the purposes of outreach and training and authorizes OEHHA to establish reasonable requirements for performance. (HSC § 105206 (f))

- 8) Requires OEHHA to review the cholinesterase test results submitted as part of the Program. Authorizes OEHHA to provide an appropriate medical or toxicological consultation to the medical supervisor, and, in consultation with DPR and the local health officer, to provide medical and toxicological consultation, as appropriate, to the county agricultural commissioner to address medical issues related to the investigation of cholinesterase inhibitor-related illness. (HSC § 105206 (f))
- 9) Requires DPR and OEHHA to prepare and publicly post an update on the effectiveness of the Program and the utility of laboratory-based reporting of cholinesterase testing for illness surveillance and prevention by January 1, 2021. (HSC § 105206 (g))
- 10) Sunsets the data reporting and medical supervisor registration provisions of the Program on January 1, 2027. (HSC § 105206 (h))

**FISCAL EFFECT:** Unknown.

**COMMENTS:**

*Need for the bill:* The California Medical Supervision Program (Program) is designed to protect agricultural workers who regularly mix, load, or apply Toxicity Category 1 and 2 organophosphate and carbamate pesticides (OPs/CBs), which are highly toxic pesticides that inhibit the nerve enzyme, cholinesterase. Under the Program, employers must contract with a medical supervisor to monitor their workers for overexposure to OP/CB pesticides by testing workers' blood cholinesterase activity levels. If overexposure is identified, specific actions must be taken to reduce worker harm. In order for the State to ensure that the Program is effectively protecting workers, agricultural worker cholinesterase test results are transmitted to DPR, and OEHHA registers and provides outreach and consultation to the medical supervisors overseeing the workers' cases. These reporting and registration requirements sunset on January 1, 2027.

AB 1440 extends the sunset on the reporting and registration requirements to January 1, 2029, so that the State can continue to effectively evaluate and manage the Program

*Organophosphate and carbamate (OP/CB) pesticide exposure:* According to DPR, OPs and CBs work as pesticides by inhibiting the nerve enzyme cholinesterase, which breaks down the neurotransmitter acetylcholine, leading to the death of an insect. OPs and CBs can also affect humans by inhibiting cholinesterase. High exposure to OPs/CBs can cause a variety of acute symptoms of neurological poisoning in people, including blurred vision, diarrhea, increased respiratory secretions, tremors, seizures, loss of consciousness, and death. The acute symptoms of OP/CB overexposure can sometimes mimic other illnesses, and people can be sub-clinically affected without showing major acute symptoms. Due to the potential for sub-clinical effects or misdiagnosis of the acute effects, tests for cholinesterase depression are essential for identifying potential overexposure.

*Toxicity Category 1 and 2 OP/ CB pesticides:* The United States Environmental Protection Agency (U.S. EPA) determines pesticide toxicity categories based on the effects of consumption of, inhalation of, or dermal contact with a pesticide. The degree of toxicity determines which precautions and signal word must appear on the pesticide label. Toxicity Category 1 pesticides are highly toxic and severely irritating, and are thus required to prominently display the signal word "DANGER" on product labels. Toxicity Category 2 pesticides are moderately toxic and

moderately irritating, and are required to prominently display the signal word "WARNING" on product labels.

While the use of Toxicity Category 1 and 2 OP/ CB pesticides in California has declined 90% since 1995, growers still applied an average of 1.8 million pounds per year of these cholinesterase-inhibiting pesticides from 2014 to 2023. Employers of handlers of Toxicity Category 1 and 2 OP/ CB pesticides are required to monitor their employees' cholinesterase under the Program.

*California Medical Supervision Program (Program):* Established in 1974, the Program is intended to protect pesticide handlers from excessive exposure to Toxicity Category 1 and 2 OPs and CBs. The goal of the program is to monitor blood cholinesterase activity levels of workers in order to identify and prevent excessive pesticide exposure and resulting pesticide-related illness. Under the Program, employers must contract with a licensed physician as a "medical supervisor" to test the blood cholinesterase level of workers who regularly handle these pesticides. To monitor each employee, the medical supervisor establishes baseline values of cholinesterase during non-exposure periods, and then periodically measures cholinesterase activity levels while the worker handles OPs/CBs. If the employee's cholinesterase is depressed below certain levels, the employer must take immediate specified actions, such as promptly retesting the employee, evaluating the employee's work practices, or immediately removing the employee from further exposure, in order to prevent excessive pesticide exposure and pesticide-related illness.

*Reporting requirements:* While the Program had been in existence for more than 30 years, prior to 2010 the State had received very little information from the field to determine whether the Program was effective. Assembly Bill (AB) 1963 (Nava, Chapter 369, Statutes of 2010) added HSC § 105206, which requires laboratories that conduct cholinesterase tests as a part of the Program to report test results to DPR. The results are then analyzed by DPR and OEHHA, in consultation with DPH. These provisions were meant to give the State a better idea of whether workers are actually being protected in the field and whether the Program is working as intended.

*2015 Program analysis:* AB 1963 also required, by December 31, 2015, DPR and OEHHA, in consultation with DPH, to prepare a report on the effectiveness of the medical supervision program and on the utility of laboratory-based reporting of cholinesterase testing for pesticide illness surveillance and prevention. DPR and OEHHA submitted the resultant report, "*The Report to the California Legislature: California's Cholinesterase Test Results*," in December 2015, which found that overall the Program appeared effective at protecting agricultural workers who handle cholinesterase-inhibiting pesticides. The report did find, however, that based on the data submitted from 2011-2013, the utility of the data analysis was hampered by the inclusion of thousands of records from individuals who are not in the Program, and by missing data on the purpose (i.e. baseline, follow-up, or recovery) of the cholinesterase test. DPR and OEHHA laid out specific "future directions," or actions that the two entities would take to improve the Program and to improve the utility of the data collected. DPR and OEHHA also made two recommendations that required legislation for Program improvement: 1) Cholinesterase reporting should continue at least through December 31, 2018, so that DPR and OEHHA can obtain additional data with clearer information on the purpose of the test and to allow further evaluation of the Program; and, 2) Transferring some cholinesterase reporting responsibilities from the laboratories to the medical supervisors as a more efficient way to implement the

Program. The report also recommended enhanced outreach to and training activities for medical supervisors to increase their understanding of the Program.

*2016 Program development:* In response to DPR and OEHHA's report, the legislature passed, and the governor signed, AB 2892 (ESTM Committee, Chapter 475, Statutes of 2016), which extended the sunset on the data reporting requirements from January 1, 2017, to January 1, 2021; updated the information that was required to be reported; transferred some of the responsibility of reporting cholinesterase test results and related information from laboratories to medical supervisors; required OEHHA to establish a procedure for registering and deregistering medical supervisors and to establish requirements for their performance; codified the requirement that an employer of employees who regularly handle OPs/CB pesticides must contract with a medical supervisor registered with OEHHA; and, required DPR and OEHHA to prepare and publicly post an "update" on the effectiveness of the medical supervision program and the utility of laboratory-based reporting of cholinesterase testing for illness surveillance and prevention by January 1, 2021.

While DPR and OEHHA were completing the update, the legislature, through AB 3220 (ESTM Committee, Chapter 296, Statutes of 2020), again extended the sunset on the data reporting requirements and the medical supervisor registration provisions of the Program from January 1, 2021, to January 1, 2023.

*2022 Program analysis:* As required by AB 2892, DPR and OEHHA prepared an "update" (2022 update), which was an analysis of the effectiveness of the medical supervision program and the utility of laboratory-based reporting of cholinesterase testing for illness surveillance and prevention, following the programmatic changes required by AB 2892 and recommended in the 2015 report. DPR and OEHHA released the 2022 update on January 26, 2022, and subsequently posted it on their websites.

DPR and OEHHA reported in the 2022 update that the Program still appeared effective in protecting agricultural workers handling cholinesterase-inhibiting pesticides; however, while data quality had improved since 2014, the utility of the data analysis continued to be hampered by the inclusion of tens of thousands of cholinesterase test records from individuals who are not in the Program (e.g. those who are tested for other medical reasons, such as pre-operative tests, liver disease, etc.). Additionally, an analysis of cholinesterase data received by DPR from 2011 to 2019 showed that a large proportion of the cholinesterase test reports still did not include the purpose of the test, and usually did not include the ordering physician's information or the patient's correct name. DPR needs to be able to identify individual workers and to know the purpose of the test in order to track and compare an individual employee's cholinesterase activity level after handling pesticides to their pre-exposure baseline level in order to prevent excessive pesticide exposure. To address these data quality concerns, the 2022 update recommended amending HSC § 105206 to request additional data elements from reporting laboratories to better identify workers and ordering physicians.

*2022 Program development:* In response to the 2022 update, the legislature passed and the Governor signed AB 1787 (Quirk, Chapter 108, Statutes of 2022), which, as recommended in the 2022 update, required reporting laboratories to submit additional identifying information for the patient and medical supervisor so the State can better identify, track, and protect the health of workers in the Program. AB 1787 also extended the sunset on the data reporting and medical supervisor registration requirements of the Program from January 1, 2023, to January 1, 2027.

*This bill:* This bill extends the sunset, from January 1, 2027, to January 1 2029, on the data reporting and medical supervisor registration requirements of the Program.

*Related legislation:*

- 1) AB 1787 (Quirk, Chapter 108, Statutes of 2022). Extended the sunset, from January 1, 2023, to January 1, 2027, on the data reporting and medical supervisor registration requirements of the Program, and required laboratories to submit additional information to the State to help identify workers, and medical supervisors of workers, in the Program.
- 2) AB 3220 (ESTM Committee, Chapter 296, Statutes of 2020). Extended the sunset, from January 1, 2021, to January 1, 2023, on the data reporting and medical supervisor registration provisions of the Program.
- 3) AB 2892 (ESTM Committee, Chapter 475, Statutes of 2016). Updated and enhanced the Program by extending the sunset on the requirement for laboratories to transmit cholinesterase test results to the State; requiring OEHHA to register medical supervisors; requiring medical supervisors to report depressions in cholinesterase levels as a pesticide illness; and, requiring DPR and OEHHA to prepare and publicly post an update on the effectiveness of the medical supervision program and the utility of laboratory-based reporting of cholinesterase testing for illness surveillance and prevention.
- 4) AB 1963 (Nava, Chapter 369, Statutes of 2010). Required clinical laboratories that perform cholinesterase testing for the purpose of determining workers' pesticide exposure to electronically report test results to DPR.
- 5) AB 1530 (Lieber, 2007). Would have required clinical laboratories that perform cholinesterase testing for the purpose of determining workers' pesticide exposure to electronically report test results to DPR. This bill was held in the Senate Appropriations Committee.

**REGISTERED SUPPORT / OPPOSITION:**

**Support**

American Congress of Obstetricians & Gynecologists - District IX  
California Rural Legal Assistance Foundation  
Pesticide Action Network North America

**Opposition**

None on file

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