
SENATE COMMITTEE ON ENVIRONMENTAL QUALITY

Senator Allen, Chair

2023 - 2024 Regular

Bill No: AB 1042
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Urgency: No
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Hearing Date: 6/28/2023
Fiscal: Yes

SUBJECT: Pesticides: seeds

DIGEST: Requires the director of the Department of Pesticide Regulation (director) to adopt regulations to govern the use and disposal of seeds treated with a pesticide.

ANALYSIS:

Existing law:

- 1) Establishes the state's program for the registration, sale, transportation, and use of pesticides. (Food and Agriculture Code (FAC) § 11401 et seq.)
- 2) Provides that the purpose of California's pesticide program is to, among other things:
 - a) Provide for the proper, safe, and efficient use of pesticides essential for the production of food and fiber and for the protection of public health and safety;
 - b) Protect the environment from environmentally harmful pesticides by prohibiting, regulating, or ensuring proper stewardship of those pesticides;
 - c) Assure agricultural and pest control workers of safe working conditions where pesticides are present; and,
 - d) Encourage the development and implementation of pest management systems, stressing application of biological and cultural pest control techniques with selective pesticides when necessary to achieve acceptable levels of control with the least possible harm to nontarget organisms and the environment. (FAC § 11501)
- 3) Requires the director, and the County Agricultural Commissioner (CAC) of each county under the direction and supervision of the director, to enforce the pesticide program and the regulations that are issued pursuant to it. (FAC § 11501.5)

- 4) Requires the director to adopt regulations that govern the conduct of the business of pest control. (FAC § 11502)
- 5) Defines "pesticide" as including any substance, or mixture of substances, which is intended to be used for defoliating plants, regulating plant growth, or for preventing, destroying, repelling, or mitigating any pest, as defined, which may infest or be detrimental to vegetation, man, animals, or households, or be present in any agricultural or nonagricultural environment whatsoever. (FAC § 12753)
- 6) Requires the director to endeavor to eliminate from use in the state any pesticide that endangers the agricultural or nonagricultural environment, is not beneficial for the purposes for which it is sold, or is misrepresented. Requires, in carrying out this responsibility, the director to develop an orderly program for the continuous evaluation of all pesticides actually registered. (FAC § 12824)
- 7) Requires, before a substance is registered as a pesticide for the first time, there to be a thorough and timely evaluation. Authorizes appropriate restrictions to be placed upon the pesticide's use, including, but not limited to, limitations on quantity, area, and manner of application. Requires that all pesticides for which renewal of registration is sought to be evaluated. (FAC § 12824)
- 8) Authorizes the director, after hearing, to cancel the registration of, or refuse to register, any pesticide that, among other things:
 - a) Has demonstrated serious uncontrollable adverse effects either within or outside the agricultural environment;
 - b) The use of which is of less public value or greater detriment to the environment than the benefit received by its use;
 - c) For which there is a reasonable, effective, and practicable alternate material or procedure that is demonstrably less destructive to the environment; and,
 - d) That, when properly used, is detrimental to vegetation, except weeds, to domestic animals, or to the public health and safety. (FAC § 12825)
- 9) Requires the director to prohibit or regulate the use of environmentally harmful materials, as specified. Requires the director, in so doing, to consider the effect of all such materials upon the environment, and take whatever steps the director deems necessary to protect the environment. (FAC § 14102)

This bill:

- 1) Requires the director to adopt regulations to govern the use and disposal of seeds treated with a pesticide.
- 2) Requires that regulations adopted to govern the use and disposal of seeds treated with a pesticide prohibit the use of such seeds that meet any of the existing statutory conditions for the cancelation of the registration of a pesticide.
- 3) Prohibits, on or after January 1, 2026, a person from selling, delivering, or using seeds treated with a pesticide if that pesticide is not registered for use in California.
- 4) Requires, on and after January 1, 2025, a use report to be submitted by, or on behalf of, a grower to the director or a County Agricultural Commissioner (CAC), on a form and in a manner prescribed by the director, when seeds treated with a pesticide are used by the grower in the state.
- 5) Requires, based on those use reports, the director or CAC, on and after January 1, 2026, to annually report to the public both of the following:
 - a) The pounds of pesticides applied as seed treatment in California, separated by crop type, active ingredient, and county of application; and,
 - b) The cumulative acres planted with seeds treated with a pesticide in California, separated by crop type, active ingredient, and county of application.
- 6) Requires the director to endeavor to eliminate from use in the state any seed treated with a pesticide that endangers the agricultural or nonagricultural environment, is not beneficial for the purposes for which it is sold, or is misrepresented. Requires the director, in carrying out this responsibility, to develop an orderly program for the continuous evaluation of all seeds treated with a pesticide.
- 7) Requires the director to prohibit or regulate the use of environmentally harmful materials, including seeds treated with a pesticide.

Background

1) *Pesticide treated seeds.* Pesticides, such as fungicides, insecticides, bactericides, algaecides, slimicides, and nematicides, are applied to seeds prior to planting to protect them from diseases, insects, or other pests. Pesticide treatments on seeds are used for localized plant protection; to protect against soil and aboveground pests; and, as systemic pesticides that absorb into the plant and distribute throughout its tissues. Treatments are made to a variety of crop seeds from grains and oilseed crops (e.g., wheat, corn, canola, etc.), to fruits and vegetables (e.g., broccoli, melons, etc.), as well as to "seed pieces" (e.g., potatoes). Treatment of seeds can occur in commercial seed treatment facilities, after which growers can purchase and plant already-treated seed, or growers may choose to treat seed on their own – known as "on-farm" seed treatment – and then plant the treated seed.

According to the United States Environmental Protection Agency (US EPA), treating seeds with pesticides has become a common agricultural practice to improve seed quality by reducing soil borne diseases and by discouraging insects or other pests.

In addition to agricultural use, treated seeds can be used in residential gardens.

2) *Fate of pesticide treated seeds in the environment.* According to a summary of the fate of neonicotinoid-treated seeds in the environment presented by the Department of Pesticide Regulation (DPR), 90% or more of pesticides applied to seeds can move offsite and leach into water or soil and be taken up by non-crop plants. Additionally, approximately 2 – 3% of the neonicotinoids on treated seeds is lost as dust at planting, and another 2 – 3 % is taken up by plants. Neonicotinoids applied to seeds protect the plant from root feeding plants for a maximum of 2 – 3 weeks. Other pesticide classes, such as fungicides, are commonly in seed treatment products, however less is known about the environmental fate of non-neonicotinoid pesticides used in seed treatment products.

DPR reports that managed pollinators, such as honey bees, and wild pollinators are exposed to the pesticides applied to treated seeds through dust, agricultural soil, crop flowers, and nearby wildflowers. Birds are also exposed to the pesticides on seeds through the seeds themselves, such as by ingestion, and through the water. Aquatic invertebrates are exposed to pesticides from treated seeds through dust, seeds, and water. Pesticides from treated seeds can also be absorbed by aquatic plants.

- 3) *Occupational exposure.* According to the US EPA, workers at commercial seed treatment facilities can be exposed to pesticides on treated seeds when performing tasks directly associated with the seed treating and coating processes; performing tasks associated with the packaging, storing, or transporting of treated seeds; cleaning treatment machinery; and, loading and planting the seeds.

For on-farm seed treatment, workers can be exposed to the pesticides used on seeds when treating seeds prior to loading them into planters or when directly applying liquid or solid product to seeds already in planting equipment.

- 4) *Regulation of pesticide treated seeds:* According to DPR's website, "Pesticide-treated seeds are exempted from review by the [US EPA] under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) as "treated articles." To the extent that a seed is treated to protect the seed, the seed does not fall under the state definition of "pesticide" and is excluded from review by DPR. Seed treatment products must be registered by [US EPA] and DPR when the coating process is conducted in California. However, there is limited information on which commodities utilize treated seeds, which active ingredients are used for each commodity, and the extent to which treated seeds are used in California."

California Department of Food and Agriculture seed inspection data from 2010 – 2021 show that *many seed treatment products found on seeds in California are not registered for use in the state, meaning that pesticides not allowed for use in California are entering the state and planted via treated seeds.*

- 5) *Statutory definition of pesticide:* The California Food and Agricultural Code defines a "pesticide" as including any spray adjuvant and "any substance, or mixture of substances, which is intended to be used for defoliating plants, regulating plant growth, or for preventing, destroying, repelling, or mitigating any pest, as defined, which may infest or be detrimental to vegetation, man, animals, or households, or be present in any agricultural or nonagricultural environment whatsoever."
- 6) *How much treated seed is used in California?* While regulators concur that treated seed use has significantly increased over recent decades, little direct information is available to assess treated seed use in California. DPR requires reporting of all agricultural pesticide use, including the type of pesticide applied, the amount applied, the area treated, and the application method. However, DPR argues that pesticide-treated seeds do not fall under the state definition of a pesticide and are exempt from pesticide use reporting. They say that seed treatment products are considered industrial use and do not have the same reporting requirements. Therefore, publicly available pesticide use data in

California does not currently account for pesticides applied as seed treatments and little direct or detailed information is known about the amount and types of pesticides on seeds in the state.

Unfortunately, the lack of data on treated seeds is a national problem. According to a May 2020, article in *BioScience*, pesticide use data in the United States also does not currently account for pesticides applied as seed treatments. The article notes that while we find that seed treatment use has increased in major field crops over the last several decades, there is a high degree of uncertainty about the extent of acreage planted with treated seeds, the amount of regional variability, and the use of certain active ingredients. The article says that one reason for this uncertainty is that farmers are less likely to know what pesticides are on their seed than they know about what pesticides are applied conventionally to their crops. This lack of information affects the quality and availability of seed treatment data and also farmers' ability to tailor pesticide use to production and environmental goals.

7) *DPR's treated seed workshop*: DPR held a virtual Pesticide-Treated Seed Public Workshop on November 15, 2021, to articulate the current regulatory framework surrounding pesticide-treated seeds; to characterize potential for off-site movement of seed coatings; and, to gather additional information on current use and potential impacts of pesticide-treated seeds. Some of the facts on treated seeds cited in previous sections of this analysis were presented by DPR at that workshop.

Following the workshop, DPR requested public comment, to be submitted by February 15th 2022, on specific questions about pesticide-treated seeds, including:

- What California crops are typically grown from pesticide-treated seeds? Is there any industry tracking the portion of those crops that rely on pesticide-treated seeds?
- Is there any tracking of how much (e.g., acres treated, pounds applied) total pesticide treated seed is planted in California?
- What kind of insect or other pest pressures do seeds face?
- For crops that use pesticide-treated seeds, are these primarily imported, treated in California at a treatment facility or seed retailer, or treated on site?
- Is there any industry tracking or documentation that details how much pesticide treated seed is imported into California for use in California?
- How much seed treatment product does the seed retain versus how much is lost in the treatment process? What information is available on the mass of pesticide on the seed at the time of planting?

- The peer-review literature heavily focuses on environmental impacts from neonicotinoid treated seeds. Is there information focused on other active ingredients utilized in pesticide treated seeds?
- Is there any information on the relative environmental impact of pesticide-treated seeds versus other application methods?

The types of questions posed by DPR illustrate the profound lack of, and need for, information on treated seeds used in the state.

- 8) *Litigation on pesticide-treated seeds in California:* On February 17, 2023, the Natural Resources Defense Council, on behalf of Californians for Pesticide Reform, Friends of the Earth, Center for Biological Diversity, and Pesticides Action Network North America, filed a lawsuit against DPR in Alameda County Superior Court regarding the regulatory status of pesticide-treated seeds in California. This action followed a previous petition filed in 2020, which prompted the lawsuit.

Under the lawsuit, the petitioners/plaintiffs claim,

"...the failure of [DPR] to comply with their duties under California's Administrative Procedure Act (APA), Cal. Gov't Code §§ 11340 et seq., when developing a policy that allows one of the largest sources of pesticide contamination in California to go unregulated under state law. DPR is responsible for regulating pesticide use in California, "tak[ing] whatever steps" are "necessary to protect the environment." Cal. Food and Agric. Code (FAC) § 14102. DPR has effectively exempted from regulation all crop seeds treated with pesticides prior to planting... without following the procedures required by law, resulting in severe consequences to the environment and public health.

For decades, DPR has maintained a policy that treated seeds are not "pesticides" subject to regulation... Because DPR did not give notice to the public of this policy, allow members of the public to request hearings or comment on it, or otherwise comply with the requirements of the APA in adopting the treated-seeds policy, it constitutes an "underground regulation" in violation of the APA.

...DPR has a duty to prohibit or regulate pesticides as necessary to "protect the environment." FAC § 14102. It also must "endeavor to eliminate from use in the state any pesticide that endangers the agricultural or nonagricultural environment, is not beneficial for the purposes for which it is sold, or is misrepresented." Id. §12824. By effectively exempting treated seeds from regulation as pesticides under California law, DPR has shirked its duties, leading to environmental harms described above. Furthermore, by failing to follow APA requirements, DPR prevented those impacted by its treated-seeds policy from commenting on the policy before it was adopted."

Comments

- 1) *Purpose of Bill.* According to the author, "One would think that the Department of Pesticide Regulation would regulate all pesticide uses – that is not true. DPR does not protect Californians from the pesticides used to treat seeds. As a result, a huge volume of pesticide use in California may be completely unknown. AB 1042 takes the long-overdue step of resolving this loophole by ensuring [DPR] regulates pesticide-treated seeds, consistent with its mandate."
- 2) *“Ban” of treated seeds?* The opposition claims that “AB 1042 would “ban” the sale of treated seeds and the require DPR to conduct a time-intensive, extensive regulatory review across multiple products before seeds may be available again.” However, the bill does not prohibit treated seed use pending regulation by DPR. Rather, the bill prohibits the use and sale of seeds treated with a pesticide *if* that pesticide is not registered for use in California. Recent amendments taken by the author delay this prohibition to January 1, 2026, allowing growers a two-year grace period to use *any* treated seed they have on hand.

DPR has registered numerous seed-treatment products that can lawfully be used to treat crop seeds in California. AB 1042 would not disturb the use of DPR-approved seed treatments. Rather, this bill would help ensure, starting January 1, 2026, that seeds planted in California soil may only be treated with DPR-approved pesticides – thereby closing a loophole.

- 3) *Register vs. regulate.* AB 1042 requires DPR to adopt regulations to govern the use and disposal of seeds treated as a pesticide. Some stakeholders (i.e., the agriculture industry) interpret this to mean DPR would have to “register” treated seeds. According to DPR, that would involve DPR verifying the labeling requirements for pesticide-treated seeds, including pesticide-treated seeds in marketplace surveillances and the auditing of manufacturing facilities, increasing the evaluation of the aquatic risk of pesticide products, building upon the Pesticide Use Reports (PUR), reviewing and verifying the data entries from applicators, and creating an outreach program explaining the new processes and communicating that information to the County Agricultural Commissioners. However, the bill does not *require* DPR to “register” treated seeds, just *regulate* them, which may or may not involve registration – the decision would be left entirely up to DPR.

- 4) *Data reporting.* As noted above, pesticide-treated seeds are exempt from review by the US EPA under FIFRA as "treated articles" and are excluded from review by DPR. As a result, treated seeds are not subject to the Pesticides Use Reporting system. Thus, there is limited information on which commodities utilize treated seeds, which active ingredients are used for each commodity, and the extent to which treated seeds are used in California. To fill this data gap, AB 1042 would require growers, on and after January 1, 2025, to submit a use report when treated seeds are used by the grower in the state. The bill further requires the director or commissioner, beginning January 1, 2026, to annually report to the public the pounds of pesticide applied as seed treatment and the cumulative acres planted with treated seeds, as specified.

The opposition contends that current Federal and California seed labels do not provide the necessary information to allow for the use reporting requirements called for in the bill. As drafted, staff would note that the specific reporting requirements on the grower are left to the discretion of DPR. Thus, there is no statutory requirement that growers report information that they don't have. Further, if DPR determines that it does not have adequate information to complete the required use report, it could remedy that through its regulations.

Related/Prior Legislation

SB 1282 (Leno and Allen, 2016) would have required all commercially available seeds and plants sold at retail establishments, excluding noxious weed seeds and plants that have been treated with a neonicotinoid pesticide to be labeled as such. This bill failed passage on the Senate floor, was grated reconsideration, and subsequently died on the inactive file.

DOUBLE REFERRAL:

If this measure is approved by the Senate Environmental Quality Committee, the do pass motion must include the action to re-refer the bill to the Senate Agriculture Committee.

SOURCE: Author

SUPPORT:

A Voice for Choice Advocacy
American Bird Conservancy
Audubon California
Ban Sup (single Use Plastic)
California Institute for Biodiversity

California Native Plant Society
California Public Interest Research Group (CALPIRG) Students
Californians for Pesticide Reform
Calpirg, California Public Interest Research Group
Ccaej
Center for Food Safety; the
Central California Environmental Justice Network
Central Valley Bird Club
Clean Earth 4 Kids
Clean Water Action
Endangered Habitats League
Environment California
Environmental Justice Coalition for Water
Environmental Protection Information Center
Environmental Working Group
Facts Families Advocating for Chemical and Toxics Safety
Friends Committee on Legislation of California
Friends of Harbors, Beaches and Parks
Friends of The Earth
Klamath Forest Alliance
Los Angeles Audubon Society
Midpeninsula Regional Open Space District
Non-toxic Neighborhoods
Nrdc
Peregrine Audubon Society
Pesticide Action Network
Point Blue Conservation Science
Raptors are The Solution
San Bernardino Valley Audubon Society
Sierra Club California
Sonoma County Beekeepers Association
The Growing Solutions Fund
The Urban Wildlands Group

OPPOSITION:

Agricultural Council of California
American Seed Trade Association
Biotechnology Innovation Organization
California Agricultural Aircraft Association
California Alfalfa & Forage Association
California Association of Pest Control Advisers
California Association of Wheat Growers
California Cotton Ginners and Growers Association
California Farm Bureau Federation

California Fresh Fruit Association
California Grain & Feed Association
California Seed Association
California Warehouse Association
Croplife America
Far West Equipment Dealers Association
Grower-shipper Association of Central California
Growing Coachella Valley
Nisei Farmers League
Pacific Seed Association
Plant California Alliance
Western Agricultural Processors Association
Western Growers Association
Western Plant Health Association

ARGUMENTS IN SUPPORT: According to a coalition of supporters, "Seed treatments are potentially the greatest source of pesticide contamination in the United States, yet due to a gaping loophole in federal pesticide law, The Treated Article Exemption, they go unregulated. As such, they are not tracked, labeled, or regulated in the same manner as other pesticides. The Environmental Protection Agency has upheld the current classification despite repeated efforts by concerned citizens and organizations. 210 products are registered as seed treatments by CDPR, representing 68 unique active ingredients. This does not account for seeds imported from other states which may use other active ingredients or products. However, CDPR itself stated in a 2021 workshop: "...[pesticide-coated] seed does not fall under the state definition of 'pesticide' and is excluded from review by CDPR."

"Coated seeds are incredibly damaging to the environment. A single seed coated with a neonicotinoid insecticide can kill a songbird. There is enough active ingredient on a single seed to kill 80,000 bees. As much as 95% of the coating dusts or sloughs off, killing local wildlife, persisting in soil for up to three years, and infecting ground and surface water.

"A CDPR evaluation found 93% of urban water samples in Los Angeles, Orange, and San Diego County and 67% in urban areas of Alameda, Contra Costa, Placer, Sacramento, and Santa Clara County contained seedcoating chemicals at levels above EPA's chronic benchmark for harm to aquatic ecosystems.

"AB 1042 is not a chemical ban; it simply clarifies CDPR's authority to regulate pesticide-coated seeds within currently prescribed California state law. Californians and the land, water, and wildlife they steward have a right to be

protected from pesticide pollution and effects, especially when current applications may have no benefit to the growers paying for them."

ARGUMENTS IN OPPOSITION: According to a coalition of opponents, "[AB 1042] would require unnecessary and burdensome regulations of treated seeds, resulting in fewer pest and disease prevention options and specialty crop seeds available to California farmers...This additional regulatory review will add significant expense to the CDPR and County Agricultural Commissioners, whose budgets are already fiscally challenged without a viable and identified fund source.

"Treated seeds protect plants against pests, diseases, and fungi from infancy, at the most vulnerable stage. This treatment provides the best chance to develop into healthy, high-quality plants, maximizing the harvest potential. Additionally, treating the seed often reduces the need for, and/or number of foliar applications of pesticide materials, providing better environmental protection, reducing exposure opportunities for farm employees and communities, and fewer passes with equipment through the field, resulting in reduced carbon emissions.

"The US EPA regulates treated seeds as a "treated article." Under 40 CFR §152.25(a), the seeds treated with pesticides are considered "treated articles" if, and only if:

- The article (i.e., the seed) contains or is treated with a pesticide.
- The pesticide is intended to protect the article itself.
- The pesticide itself is registered for this use, meaning the agency has already assessed whether a particular use (E.g., use as a seed treatment) meets the Federal Insecticide, Fungicide, and Rodenticide Act's registration standard.
- The tags on a package of treated seed must include identification of what the seed has been treated with, guidance for safe handling, and other applicable labeling requirements.

"...Given the thorough review of the pesticide material, the duplicated review required by AB 1042 would have no additional benefit to health, safety, or the environment."

-- END --