

**ECONOMIC AND FISCAL IMPACT STATEMENT
(REGULATIONS AND ORDERS)**

STD. 399 (Rev. 10/2019)

ECONOMIC IMPACT STATEMENT

DEPARTMENT NAME Department of Pesticide Regulation	CONTACT PERSON Brittanie Clendenin	EMAIL ADDRESS Brittanie.Clendenin@cdpr.ca.gov	TELEPHONE NUMBER 916-324-3896
DESCRIPTIVE TITLE FROM NOTICE REGISTER OR FORM 400 Neonicotinoid Pesticide Exposure Protection			NOTICE FILE NUMBER Z

A. ESTIMATED PRIVATE SECTOR COST IMPACTS *Include calculations and assumptions in the rulemaking record.*

1. Check the appropriate box(es) below to indicate whether this regulation:

- | | |
|--|--|
| <input checked="" type="checkbox"/> a. Impacts business and/or employees | <input type="checkbox"/> e. Imposes reporting requirements |
| <input checked="" type="checkbox"/> b. Impacts small businesses | <input checked="" type="checkbox"/> f. Imposes prescriptive instead of performance |
| <input type="checkbox"/> c. Impacts jobs or occupations | <input type="checkbox"/> g. Impacts individuals |
| <input type="checkbox"/> d. Impacts California competitiveness | <input type="checkbox"/> h. None of the above (Explain below): |

*If any box in Items 1 a through g is checked, complete this Economic Impact Statement.
If box in Item 1.h. is checked, complete the Fiscal Impact Statement as appropriate.*

2. The Department of Pesticide Regulation
(Agency/Department) estimates that the economic impact of this regulation (which includes the fiscal impact) is:

- Below \$10 million
 Between \$10 and \$25 million
 Between \$25 and \$50 million
 Over \$50 million [If the economic impact is over \$50 million, agencies are required to submit a [Standardized Regulatory Impact Assessment](#) as specified in Government Code Section 11346.3(c)]

3. Enter the total number of businesses impacted: 5,900 - 70,500

Describe the types of businesses (Include nonprofits): Growers of agricultural crops that treat fields with neonicotinoids

Enter the number or percentage of total businesses impacted that are small businesses: 91%

4. Enter the number of businesses that will be created: unknown eliminated: unknown

Explain: No creation or elimination of businesses are expected as a result from these regulations.

5. Indicate the geographic extent of impacts: Statewide
 Local or regional (List areas): _____

6. Enter the number of jobs created: unknown and eliminated: unknown

Describe the types of jobs or occupations impacted: Growers of agricultural crops that treat fields with neonicotinoids

7. Will the regulation affect the ability of California businesses to compete with other states by making it more costly to produce goods or services here? YES NO

If YES, explain briefly: Increase in production costs.

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ECONOMIC IMPACT STATEMENT (CONTINUED)**B. ESTIMATED COSTS** *Include calculations and assumptions in the rulemaking record.*1. What are the total statewide dollar costs that businesses and individuals may incur to comply with this regulation over its lifetime? \$ 166.3 milliona. Initial costs for a small business: \$ 470 - 5,600 Annual ongoing costs: \$ 470 - 5,600 Years: 5b. Initial costs for a typical business: \$ 470 - 5,600 Annual ongoing costs: \$ 470 - 5,600 Years: 5c. Initial costs for an individual: \$ N/A Annual ongoing costs: \$ N/A Years: N/Ad. Describe other economic costs that may occur: None2. If multiple industries are impacted, enter the share of total costs for each industry: N/A3. If the regulation imposes reporting requirements, enter the annual costs a typical business may incur to comply with these requirements.
Include the dollar costs to do programming, record keeping, reporting, and other paperwork, whether or not the paperwork must be submitted. \$ N/A4. Will this regulation directly impact housing costs? YES NO

If YES, enter the annual dollar cost per housing unit: \$ _____

Number of units: _____

5. Are there comparable Federal regulations? YES NOExplain the need for State regulation given the existence or absence of Federal regulations: State regulation is needed to protect pollinators from the use of neonicotinoid pesticides and is required by Food and Agricultural Code section 12838.Enter any additional costs to businesses and/or individuals that may be due to State - Federal differences: \$ 0**C. ESTIMATED BENEFITS** *Estimation of the dollar value of benefits is not specifically required by rulemaking law, but encouraged.*1. Briefly summarize the benefits of the regulation, which may include among others, the health and welfare of California residents, worker safety and the State's environment: See attached2. Are the benefits the result of: specific statutory requirements, or goals developed by the agency based on broad statutory authority?Explain: See Attached3. What are the total statewide benefits from this regulation over its lifetime? \$ Unquantifiable4. Briefly describe any expansion of businesses currently doing business within the State of California that would result from this regulation: No expansion of businesses are expected from these regulations as there should be no increase or decrease in use of pesticides. See attached for further description.**D. ALTERNATIVES TO THE REGULATION** *Include calculations and assumptions in the rulemaking record. Estimation of the dollar value of benefits is not specifically required by rulemaking law, but encouraged.*1. List alternatives considered and describe them below. If no alternatives were considered, explain why not: See Attached

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ECONOMIC IMPACT STATEMENT (CONTINUED)

2. Summarize the total statewide costs and benefits from this regulation and each alternative considered:

Regulation: Benefit: \$ Not quantified Cost: \$ 33.3 millionAlternative 1: Benefit: \$ Not quantified Cost: \$ 36.5 millionAlternative 2: Benefit: \$ Not quantified Cost: \$ 205 million

3. Briefly discuss any quantification issues that are relevant to a comparison of estimated costs and benefits for this regulation or alternatives:

See Attached

4. Rulemaking law requires agencies to consider performance standards as an alternative, if a regulation mandates the use of specific technologies or equipment, or prescribes specific actions or procedures. Were performance standards considered to lower compliance costs?

 YES NOExplain: Performance standards were considered where applicable, but were not appropriate for all proposed requirements as specific requirements are necessary for enforcement.**E. MAJOR REGULATIONS** *Include calculations and assumptions in the rulemaking record.**California Environmental Protection Agency (Cal/EPA) boards, offices and departments are required to submit the following (per Health and Safety Code section 57005). Otherwise, skip to E4.*1. Will the estimated costs of this regulation to California business enterprises exceed \$10 million? YES NO*If YES, complete E2. and E3**If NO, skip to E4*

2. Briefly describe each alternative, or combination of alternatives, for which a cost-effectiveness analysis was performed:

Alternative 1: Designating the neonicotinoid active ingredients are restricted materialsAlternative 2: Prohibiting all uses identified as risk in the California Neonicotinoid Risk Determination document*(Attach additional pages for other alternatives)*

3. For the regulation, and each alternative just described, enter the estimated total cost and overall cost-effectiveness ratio:

Regulation: Total Cost \$ 33.3 million Cost-effectiveness ratio: \$ unknownAlternative 1: Total Cost \$ 36.5 million Cost-effectiveness ratio: \$ unknownAlternative 2: Total Cost \$ 205 million Cost-effectiveness ratio: \$ unkown

4. Will the regulation subject to OAL review have an estimated economic impact to business enterprises and individuals located in or doing business in California exceeding \$50 million in any 12-month period between the date the major regulation is estimated to be filed with the Secretary of State through 12 months after the major regulation is estimated to be fully implemented?

 YES NO*If YES, agencies are required to submit a [Standardized Regulatory Impact Assessment \(SRIA\)](#) as specified in Government Code Section 11346.3(c) and to include the SRIA in the Initial Statement of Reasons.*

5. Briefly describe the following:

The increase or decrease of investment in the State: DPR determined that no savings or increased costs to any state agency will result from the proposed regulatory action.The incentive for innovation in products, materials or processes: NoneThe benefits of the regulations, including, but not limited to, benefits to the health, safety, and welfare of California residents, worker safety, and the state's environment and quality of life, among any other benefits identified by the agency: See attached

**ECONOMIC AND FISCAL IMPACT STATEMENT
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FISCAL IMPACT STATEMENT

A. FISCAL EFFECT ON LOCAL GOVERNMENT *Indicate appropriate boxes 1 through 6 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.*

1. Additional expenditures in the current State Fiscal Year which are reimbursable by the State. (Approximate)
(Pursuant to Section 6 of Article XIII B of the California Constitution and Sections 17500 et seq. of the Government Code).

\$ _____

a. Funding provided in _____

Budget Act of _____ or Chapter _____, Statutes of _____

b. Funding will be requested in the Governor's Budget Act of _____

Fiscal Year: _____

2. Additional expenditures in the current State Fiscal Year which are NOT reimbursable by the State. (Approximate)
(Pursuant to Section 6 of Article XIII B of the California Constitution and Sections 17500 et seq. of the Government Code).

\$ _____

Check reason(s) this regulation is not reimbursable and provide the appropriate information:

a. Implements the Federal mandate contained in _____

b. Implements the court mandate set forth by the _____ Court.

Case of: _____ vs. _____

c. Implements a mandate of the people of this State expressed in their approval of Proposition No. _____

Date of Election: _____

d. Issued only in response to a specific request from affected local entity(s).

Local entity(s) affected: _____

e. Will be fully financed from the fees, revenue, etc. from: _____

Authorized by Section: _____ of the _____ Code;

f. Provides for savings to each affected unit of local government which will, at a minimum, offset any additional costs to each;

g. Creates, eliminates, or changes the penalty for a new crime or infraction contained in _____

3. Annual Savings. (approximate)

\$ _____

4. No additional costs or savings. This regulation makes only technical, non-substantive or clarifying changes to current law regulations.

5. No fiscal impact exists. This regulation does not affect any local entity or program.

6. Other. Explain [See Attached](#) _____

**ECONOMIC AND FISCAL IMPACT STATEMENT
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FISCAL IMPACT STATEMENT (CONTINUED)**B. FISCAL EFFECT ON STATE GOVERNMENT** *Indicate appropriate boxes 1 through 4 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.* 1. Additional expenditures in the current State Fiscal Year. (Approximate)

\$ _____

It is anticipated that State agencies will: a. Absorb these additional costs within their existing budgets and resources. b. Increase the currently authorized budget level for the _____ Fiscal Year 2. Savings in the current State Fiscal Year. (Approximate)

\$ _____

 3. No fiscal impact exists. This regulation does not affect any State agency or program. 4. Other. Explain _____**C. FISCAL EFFECT ON FEDERAL FUNDING OF STATE PROGRAMS** *Indicate appropriate boxes 1 through 4 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.* 1. Additional expenditures in the current State Fiscal Year. (Approximate)

\$ _____

 2. Savings in the current State Fiscal Year. (Approximate)

\$ _____

 3. No fiscal impact exists. This regulation does not affect any federally funded State agency or program. 4. Other. Explain _____

FISCAL OFFICER SIGNATURE

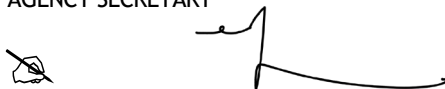
 *Leslie C. Ford*

DATE

1-5-2023

The signature attests that the agency has completed the STD. 399 according to the instructions in SAM sections 6601-6616, and understands the impacts of the proposed rulemaking. State boards, offices, or departments not under an Agency Secretary must have the form signed by the highest ranking official in the organization.

AGENCY SECRETARY



DATE

2/8/2023

Finance approval and signature is required when SAM sections 6601-6616 require completion of Fiscal Impact Statement in the STD. 399.

DEPARTMENT OF FINANCE PROGRAM BUDGET MANAGER

 *Sergio Aguilar*

DATE

2-23-2023

ECONOMIC IMPACT STATEMENT

A. ESTIMATED PRIVATE SECTOR COST IMPACTS

3. The intent of the proposed regulation is to mitigate concerns regarding neonicotinoid exposure to pollinators. This regulation impacts growers of agricultural crops that treat fields with neonicotinoids. DPR estimates the total number of businesses impacted by the regulation could be potentially as high as the number of farms in California as reported by the United States Department of Agriculture (USDA) National Agricultural Statistics Service's 2017 Census of Agriculture (USDA 2019). Not all farms have used neonicotinoid pesticides in previous years, but they have the potential to do so in the future. DPR consulted with the California Department of Food and Agriculture (CDFA) to estimate the number of farms that used neonicotinoid insecticides yearly from 2018 to 2020 based on pesticide use report data. CDFA estimates that between 5,900-6,200 farms use neonicotinoid pesticides each year. See the 2022 memorandum titled, "Number of farms using nitroguanidine-substituted neonicotinoid insecticides" (Mace, K. 2022). The USDA report indicates that about 70,500 farms operated in California during 2017, which had a combined total market value of agricultural products sold and government payments of \$43 billion. Thus, DPR estimates that the total number of businesses impacted ranges between 5,900-70,500.

DPR estimated the percentage of total businesses impacted are small businesses as the number of farms with annual gross receipts not exceeding \$1 million, as defined by Government Code, Title 2, section 11342.610. Of the 70,500 operating farms, about 6,300 (9.0 percent) had an individual market value of agricultural products sold and government payments exceeding \$1 million, with a combined total value of \$39.7 billion. Based on USDA's 2017 agricultural census, DPR estimated that 91.0 percent of the growers were small businesses. Therefore, 91.0 percent of the total direct cost of the proposed regulations impacts small businesses.

B. ESTIMATED COSTS

1. The proposed regulation will increase production costs due to change in pest management costs for each crop based on the acres treated, the available alternatives, and the costs per acre of the alternative active ingredients. DPR estimated that anywhere from 5,900 - 70,500 growers would be affected by these requirements.

DPR estimates that the total statewide annual cost of the regulations is \$33.3 million annually or \$166.3 million over a 5-year period and that 5,900 - 70,500 growers will be affected by these requirements. Therefore, the average initial and annual cost of compliance with the regulation for each affected grower is estimated at about \$470 (\$33.3 million / 70,500 growers) to \$5,600 (\$33.3 million / 5,900 growers).

C. ESTIMATED BENEFITS

1. The proposed regulations are expected to result in reduced pollinator exposure to neonicotinoids, and therefore, benefit pollinator health. Additionally, the proposed regulations may decrease overall pollinator deaths, resulting in stronger bee colonies and potential financial benefits to beekeepers. Beyond pollinators, an overall reduction of neonicotinoid use may reduce impacts to other beneficial insects, mammals, and birds, and to the overall environment. However, DPR is not able to quantify these scenarios.
2. The regulations restrict the use of certain pesticides for the protection of pollinators as required by Food and Agricultural Code section 12838.
4. These regulations will restrict the use of pesticides that contain nitroguanidine-substituted neonicotinoids. In cases where neonicotinoids can no longer be applied, alternative pesticides exist. Therefore, the total use and sales of pesticides are not expected to change. No expansion of businesses are expected from these regulations, as there should be no increase or decrease in use of pesticides.

D. ALTERNATIVES TO THE REGULATION

1. DPR has not identified any feasible alternatives to the proposed regulatory action that would achieve the purpose of the regulations and be less burdensome, including impacts on small businesses, and invites the submission of suggested alternatives. DPR explored four alternative mitigation options when developing this proposed action. Three of the four alternative mitigation options were economically more burdensome, while one was less economically burdensome, but not feasible as it offered less protection for pollinators. DPR determined that the four alternatives were either unnecessary in achieving the purpose of the regulations and compliance with FAC section 12838, or offered significantly less protection for pollinators. DPR ultimately rejected all four alternatives.

Alternative 1: Designate Neonicotinoids as Restricted Materials. One alternative mitigation option would, in addition to establishing the comprehensive use restrictions discussed above, also designate the active ingredients as California restricted materials under 3 CCR section 6400. Pesticides may be designated as restricted materials based upon criteria specified in FAC section 14004.5, including hazards to honeybees. In general, active ingredients classified as restricted materials may be purchased and used only by or under the supervision of a certified commercial or private applicator under a permit issued by the local CAC. California requires permits for restricted materials so the local CAC can assess, in advance, the potential effects of the proposed application on human health and the environment and establish site-specific requirements or restrictions over and above state regulations, if needed. In this case, the grower would need to obtain a permit from the local CAC to apply neonicotinoids in addition to complying with the restrictions identified in the proposed regulations. With the comprehensive nature of the restrictions proposed under these regulations, DPR does not anticipate the need for CACs to establish additional local restrictions. Thus, for this alternative, the mitigation measures implemented would be the same, but the means by which the mitigation is carried out would be slightly different. Additionally, most agricultural applications of neonicotinoids are already applied by

certified applicators, who must demonstrate competency to use pesticides properly and safely and maintain their certification through continuing education courses. Based on this, DPR determined that listing the nitroguanidine-substituted neonicotinoid active ingredients as restricted materials would not offer any significant additional environmental protections for pollinators because the restrictions are enforceable without site-specific permitting, and would require applicators to take an additional step, apply for a permit, to make the same application. Designating neonicotinoid active ingredients as restricted materials would result in additional costs for growers, including obtaining licensing or certification, getting a permit, and preparing and delivering to the CAC notices of intent each time they wished to apply the pesticide. CDFA analyzed the economic impact of this mitigation option in a report titled, “Economic impact on agricultural operations of making nitroguanidine-substituted neonicotinoid insecticides restricted material.” (Goodhue et al., 2019b.) In this report, CDFA only analyzed the impact of designating neonicotinoid active ingredients as restricted materials (not including the cost of additional restrictions), and estimated that the initial cost would be \$1.6 million and the estimated five-year lifetime cost would be \$6.58 million (Goodhue et al., 2019b). As the restricted material designation would be in addition to the comprehensive use restrictions proposed in this rulemaking action, the actual direct economic impact on growers would be a total of the cost of the restricted materials designation along with the cost of the proposed regulations discussed in the “Economic Impact on Businesses” section of this ISOR. As noted above, this alternative is not necessary to protect pollinator health, as it does not add significant additional environmental protections for pollinators, and thus is not included in the mitigation proposal.

Alternative 2: Prohibition of Uses on Crops Designated as High Risk. Another alternative would be to prohibit neonicotinoid use on crops identified as high risk in DPR’s Risk Determination and Addendum. Use scenarios identified as high risks to honey bees include the following crops when at least one of the neonicotinoids was applied at maximum seasonal application rates: fruiting vegetables, cucurbit vegetables, citrus fruits, pome fruits, stone fruits, tree nuts, berries, and oilseed. Since risk to pollinators can vary depending on the application rate and the time of year when the application is made, DPR determined that this alternative is not necessary to effectively protect pollinators because it would prevent some low-risk applications where neonicotinoids serve a critical role in integrated pest management strategies. Within the high-risk crops, DPR analyzed additional data which indicate that certain applications made at lower rates, or earlier in the year, are of low risk to pollinators. Based on data on file, DPR determined that the currently proposed restrictions on application rates, application timing, and total seasonal application rate caps would effectively protect pollinators. Additionally, CDFA analyzed this scenario in a report titled, “Economic and pest management evaluation of nitroguanidine-substituted neonicotinoid insecticides: nine major California commodities.” (Goodhue et al., 2019a.) In this report, it was estimated that the annual cost for prohibiting the high-risk neonicotinoid uses would be \$165–205 million (Goodhue et al., 2019a). However, as stated above, DPR rejected this alternative because it isn’t necessary to effectively protect pollinators.

Alternative 3: Same Use Restrictions for Moderately Attractive and Highly Attractive Crops. Another alternative mitigation option would remove the distinction between highly attractive crops and moderately attractive crops. Under this alternative, moderately and highly attractive crops would receive the same level of mitigation. This alternative does not take into account a crops attractiveness as a food source and the portion of a bee's diet that

the crop will likely account for. DPR found that moderately attractive crops are relatively less attractive food sources to bees and may only be attractive under certain conditions, such as when other food sources are unavailable. These crops are not expected to provide a significant portion of the bees' diet and thus, present less of a risk to pollinators. This option would increase restrictions on moderately attractive crops. DPR determined that this option is not necessary to protect pollinators and thus rejected the alternative to mitigate all crops as if they were highly attractive to pollinators.

Alternative 4: Restrict Uses Only When Managed Pollinators are Used. Another mitigation option would only establish crop restrictions when managed pollinators are used. This alternative does not take into account a crop's attractiveness as a food source and the portion of a bee's diet that the crop will likely account for. DPR determined this alternative would have a lower economic impact, but would provide insufficient protection for pollinators. Only a limited number of crops use managed pollinators, and in addition, DPR found that citrus, a highly attractive crop to pollinators, does not rely on managed pollinators. Highly, and even moderately attractive crops, likely represent a significant portion of a bee's diet, yet would not have mitigation measures under this alternative option for the highest exposure risk period of bloom. DPR found that more mitigation measures would be needed to protect all pollinators, even when managed pollinators are not relied upon. This alternative would fall short in protecting pollinators. While lower in economic impact, DPR found this alternative would not be equally effective in achieving the purposes of the regulation in a manner that ensures full compliance with FAC section 12838, as it does not sufficiently address risks to pollinators.

3. DPR looked at four alternatives to the proposed regulation. DPR received detailed economic assessments of impacts from the California Department of Food and Agriculture for two of the alternatives. Thus, DPR selected the two alternatives for which DPR has detailed information on the associated costs. The two alternatives are: 1) designating neonicotinoids as restricted materials; and 2) prohibiting uses on crops identified as high-risk in the California Neonicotinoid Risk Determination document. However, there are quantification issues between the regulation and alternatives listed in D.2. The cost associated with the proposed regulation and alternative 1, are total statewide costs including direct and indirect costs. The cost associated with alternative 2 only includes economic impacts for nine major California commodities as identified in CDFA's 2019 report. The cost listed for alternative 2 does not account for all crops that would have been affected by the alternative regulation and it does not include indirect impacts. If those were taken into account, the cost associated with alternative 2 would be more than double what is listed.

E. MAJOR REGULATIONS

5. The proposed regulations will benefit the State's environment by creating enforceable requirements that are protective of pollinators. The proposed regulations will reduce pollinator exposure of neonicotinoids resulting from the agricultural uses.

FISCAL IMPACT STATEMENT

A. Fiscal Impacts on Local Government

6. County agricultural commissioner (CAC) offices will be the local agencies responsible for enforcing the proposed regulations. DPR anticipates that there will be no fiscal impact to these agencies. DPR establishes an annual work plan with the CACs, which already requires the CACs to conduct pesticide use inspections and investigations and to enforce compliance with California worker protection laws and regulations.

REFERENCES

Goodhue, R., Mace, K., Rudder, J., Tolhurst, T., Tregeagle, D., Wei, H., Zheng, Y., Grafton-Cardwell, B., Grettenberger, I., Wilson, H., Van Steenwyk, R., Zalom, F., Rivera, M., Steggall, J. 2021. "Economic and pest management evaluation of proposed regulation of nitroguanidine-substituted neonicotinoid insecticides: eight major California commodities. Prepared by the California Department of Food and Agriculture's Office of Pesticide Consultation and Analysis, the University of California, and the University of California Cooperative Extension."

Goodhue, R., Mace, K., Rudder, J., Steggall, J. 2019b. "Economic impact on agricultural operations of making nitroguanidine-substituted neonicotinoid insecticides restricted material Prepared for the Department of Pesticide Regulation by the California Department of Food and Agriculture's Office of Pesticide Consultation and Analysis, the University of California, and the University of California Cooperative Extension."

Goodhue, R., Mace, K., Tolhurst, T., Tregeagle, D., Wei, H., Rudder, J., Grafton-Cardwell, B., Grettenberger, I., Wilson, H., Van Steenwyk, R., Zalom, F., Steggall, J. 2019a. "Economic and pest management evaluation of nitroguanidine-substituted neonicotinoid insecticides: nine major California commodities. Prepared by the California Department of Food and Agriculture's Office of Pesticide Consultation and Analysis, the University of California, and the University of California Cooperative Extension."

Mace, K. (2022). "Number of farms using nitroguanidine-substituted neonicotinoid insecticides." Office of Pesticide Consultation and Analysis, California Department of Food and Agriculture. Memorandum dated June 14, 2022, PDF.

USDA. 2019. "2017 Census of Agriculture, California, State and County Data, Volume 1." U.S. Department of Agriculture, Report AC-17-A-5.
<https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1,_Chapter_1_State_Level/California/cav1.pdf>.