



January 16, 2019

Teresa Marks, Acting Director
Ann Prichard, Chief, Pesticide Registration Branch
Department of Pesticide Regulation
Pesticide Registration Branch
1001 I Street
P.O. Box 4015
Sacramento, California 95812-4015
Submitted electronically via: Rodenticide.Comments@cdpr.ca.gov

Re: DPR's Proposed Decision to Begin Reevaluation of Second-Generation Anticoagulant Rodenticide Products

Dear Ms. Marks and Ms. Prichard,

The National Pest Management Association (“NPMA”), a non-profit organization with hundreds of members in California and more than 5,000 member companies in the United States, was established in 1933 to support the pest management industry. The U.S. pest management industry is comprised of approximately 20,000 companies with annual revenues estimated at \$8.5 billion. NPMA’s member companies manage pests including rats, mice, ants, cockroaches, bed bugs, mosquitoes, spiders, stinging insects, termites and other pests in countless commercial, residential and institutional settings. NPMA members are committed to providing quality pest management services that protect public health, food, and property.

NPMA appreciates the opportunity to comment on the proposed decision to place second generation anticoagulant rodenticides (SGARs) brodifacoum, bromadiolone, difenacoum, and difethialone into reevaluation. SGARs are an indispensable tool used by the structural pest management industry to protect the public from the negative health impacts of rodents and the consideration of additional restrictions on the use of these tools should not be entered into lightly. We believe that the data and studies presented to DPR which triggered this proposed action are biased and should not trigger or warrant the reevaluation process.

The data and studies referenced by DPR in its proposed decision to place SGARs into reevaluation do not accurately represent the healthy populations of particular animal species, are biased on multiple levels, lack transparency, are extraneous because of their focus on rodenticide use on animal species in states other than California, have poor methodology and sample size, are incomplete, and examine illegal rodenticide user groups that would likely not be impacted by a

reevaluation decision. It is NPMA's position that the data and studies referenced in DPR's proposal do **NOT** illustrate that a significant adverse impact has occurred or is likely to occur, therefore, SGARs should not be placed into reevaluation at this time because greater evidence is needed to assess the impact of the 2014 DPR decision to designate SGARs as restricted materials. A reevaluation of SGARs should only be undertaken if prompted by the presentation of unbiased, high-quality scientific evidence. We believe the studies presented as justification for this proposed reevaluation do not meet this threshold. We believe that DPR resources are better spent on comprehensive evaluation of the causes of non-target wildlife exposure and focusing on the unlawful online purchases by unlicensed individuals and the criminal use of these products at illegal marijuana grow sites.

SGARs are Critical to Protect California's Public Health, Property, and Economy

Rodenticides are necessary because of the vital need to manage rodent infestations due the bacteria, viruses, and other disease causing pathogens that they are capable of transmitting to humans. According to the U.S. Centers for Disease Control and Prevention (CDC), rodents transmit over 35 diseases such as hantavirus, rat bite fever, trichinosis, plague, infectious jaundice, Weil's disease and leptospirosis.¹ Leptospirosis results in an estimated 1.03 million annual cases and 58,900 deaths around the world.² While the majority of deaths caused by leptospirosis occur in the developing world, the United States is not immune, as three people in New York City were infected in 2017, resulting in one death.³ Renowned rodentologist Dr. Bobby Corrigan, emphasizes that, "It's hard to quantify just how much money rats are costing health systems, because most people sickened by rats have flu-like symptoms, and many don't know they've been exposed to a rat."⁴ Rodents also transmit diseases like murine typhus and salmonellosis indirectly through their droppings, saliva, urine and hosting fleas. Additionally, they exacerbate allergies and asthma attacks as a result of allergenic proteins in their urine and feces. Unfortunately, climate change is expected to worsen and bolster rodent populations.

SGARs are an essential tool for adapting to climate change because rodent populations are expected to and are currently increasing. Dr. Corrigan attributes this to climate change and warmer winters: "Breeding usually slows down during the winter months, but with shorter, warmer winters becoming more common—2016 was America's warmest winter on record—rats are experiencing a baby boom...I personally feel there is a connection with climate change, just because of logic and the biology of rats' reproductive cycle." Additionally, a 2010 USDA-APHIS study, titled, *Rodent outbreaks in North America* also attributes climate change to the increase in rodent populations: "Abundant rainfall when combined with a mild winter and a warm spring can lead to

¹ "Rodents," *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, www.cdc.gov/rodents/diseases/direct.html.

² Costa, Federico et al., "Global Morbidity and Mortality of Leptospirosis: A Systematic Review" *PLoS neglected tropical diseases* vol. 9,9 e0003898, 17 Sep. 2015, doi:10.1371/journal.pntd.0003898

³ Sarah Larimer, "This Rare Disease Spreads through Contact with Rat Urine. In New York, It Has Left 1 Dead," *The Washington Post*, WP Company, 15 Feb. 2017, www.washingtonpost.com/news/to-your-health/wp/2017/02/15/this-rare-disease-spreads-through-contact-with-rat-urine-in-new-york-it-has-left-1-dead/?utm_term=.8403bf117a4e.

⁴ Emily Atkin, "America Is on the Verge of Ratpocalypse," *The New Republic*, August 23, 2017, <https://newrepublic.com/article/144392/america-verge-ratpocalypse>.

high reproduction and survival in some species of rodents. Such conditions have led to house-mouse outbreaks in California.”⁵

Any additional restrictions placed on the use of SGARs will make it increasingly difficult to control the predicted increase of rodents and the diseases they’re known to carry.^{6,7} According to a *Newsweek* article, titled, *Ratpocalypse: Climate Change Could Mean an Imminent Rat Population Explosion* in which numerous experts were interviewed: “...scientists predict that a global warming of ‘2 degrees’ Celsius, or 3.6 degrees Fahrenheit, will occur across the globe by the end of this century. This increase of warmer winters and hotter summers provides the most fertile breeding ground for rats to reproduce at staggering rates.”⁸

The *2018 National Climate Assessment*, points out that low-income individuals will likely have the most difficult experience adapting to climate change.⁹ SGARs will likely be essential for protecting low-income Californians who don’t have the means to completely pest-proof their home or apartment. Nearly every structure is vulnerable to rodent infestations as mice can fit through an opening the size of a dime, and rats can squeeze through an opening the size of a nickel. For homeless Californians, the disease outbreaks proliferated by rodents, such as the murine typhus outbreak that occurred in LA County in October of 2018, are even more concerning.¹⁰ In order to manage the typhus outbreak, the LA County Health Department recommended rodent control as a vital solution: “We encourage pet owners to practice safe flea control and encourage all cities in the county to ensure maintenance of their trash clean-up and rodent control activities.”¹¹

Rodents contaminate 20% of the world’s food supply and contaminate and destroy enough food worldwide to feed 200 million people annually.^{12,13} California is home to some of the world’s largest food processing facilities and is a \$82 billion total value-added industry.¹⁴ A potential cancelation of SGARs could jeopardize our food supply and broader food-based economy. In addition to the \$82 billion economic impact by food processing facilities in California, restaurants generate approximately \$80 billion, and tourism generates approximately \$40 billion, all of which will be in jeopardy due to rodent infestations that cannot be controlled without SGARs. According

⁵ Gary W. Witmer and Proulx, Gilbert, "Rodent outbreaks in North America" (2010). USDA National Wildlife Research Center - Staff Publications. 1350. https://digitalcommons.unl.edu/icwdm_usdanwrc/1350

⁶ Janet Fang, "Fast-breeding Mice Dominate a Warming World," *Nature News*, May 23, 2010, <https://www.nature.com/news/2010/100523/full/news.2010.258.html>.

⁷ Air Contaminants: Traffic Pollutants. http://www.cehtp.org/faq/climate_change/vectorborne_disease_and_climate_change.

⁸ Benjamin Fearnow, "Climate Change Could Mean an Imminent Rat Population Explosion in Cities, Scientists Have Warned," *Newsweek*, November 05, 2018, <https://www.newsweek.com/rat-explosion-climate-change-2-degrees-global-warming-moisture-heat-pests-nyc-1200780>.

⁹ USGCRP, "Fourth National Climate Assessment: Chapter 25: Southwest," Fourth National Climate Assessment (NCA4), November 2018, <https://nca2018.globalchange.gov/chapter/25/>.

¹⁰ Department of Public Health - Acute Communicable Disease Control, <http://publichealth.lacounty.gov/phcommon/public/media/mediapubhpdetail.cfm?prid=1930>.

¹¹ Department of Public Health - Acute Communicable Disease Control

¹² "Pests: Everyday Threats to the Human Food Supply," *Food Safety Magazine*, August/September 2012, <https://www.foodsafetymagazine.com/magazine-archive1/augustseptember-2012/sanitation-pests-everyday-threats-to-the-human-food-supply/>.

¹³ "Rats and Mice," Indiana State Department of Health, <https://www.in.gov/isdh/23256.htm>.

¹⁴ "Food Processing Industry Report," *News & Views: California League of Processors* 1 (May 2015), <http://clfp.com/flipbooks/filesNV2015/assets/common/downloads/publication.pdf>.

to a Centre for Economics and Business Research study, in the United States, between 29% and 32% of food businesses reported a mice infestation at some point in the last 5 years.¹⁵

In addition to health and sanitation concerns, rodents can also damage property as they chew through wood and drywall, and can even gnaw through electrical wires, causing fires. A University of South Florida study notes that for the year 2000, “In the US, the economic cost of rat damage was estimated at \$19 billion/year,” with the increase in rodent populations since 2000, it is likely that the amount of damage has increased for 2018.¹⁶

The California structural pest control industry is among the most highly regulated and trained pesticide applicator groups in the State, the country, and throughout the world. The industry takes great pride in our positive contributions to society. Pest management professionals are protectors of public health and property and stewards of California’s environment, and require every tool available, including SGARs to counter the negative public health impacts of rodent infestations.

Structural Pest Control Industry: A Model for Responsible Rodenticide Use

The structural pest control industry is among the most responsible and highly trained rodenticide user groups in California. Three government agencies currently regulate the structural pest control industry in our state—placing it among the most heavily regulated pesticide applicator groups in California and the United States. Not only do structural pesticide applicators have to be trained and certified to meet rigorous federal and state standards—our industry has gone a step further. We have developed an industry specific, [Rodenticide Stewardship Training](#) that instills knowledge and teaches strategies and methods that go above and beyond state and federal educational requirements for the handling and application of rodenticides. This cutting-edge training is rigorous, in-depth, and educates pest control operators on the importance of stewarding this class of product. Additionally, our industry launched the [West Coast Rodent Academy](#), in partnership with the University of California Cooperative Extension, hosting these three-day workshops on urban rodent management across California. We have a comprehensive understanding of how to avoid exposing non-target wildlife, while safely and effectively protecting human health and property from dangerous and deadly rodents.

When professionals use SGARs, they are used with meticulous consideration and strategy. But SGARs are only one tool within a multifaceted IPM approach. Professionals also implement sanitation, exclusion, and non-chemical trapping techniques. When an area is clean and access points are sealed off—it is less likely that rodents will congregate. However, rodents are relentless, and can fit through an opening the size of a dime. When human health is at stake it is imperative that licensed professionals have every tool available in our toolbox.

¹⁵ *The Business and Economic Impacts of Pest Infestation*, Centre for Economics and Business Research, March 19, 2015, <https://www.rentokil.com/assets/content/files/rentokil-business-impact-report-2015.pdf>.

¹⁶ Anthony Almeida, Robert Corrigan, and Ronald Sarno (2013), "The Economic Impact of Commensal Rodents on Small Businesses in Manhattan’s Chinatown: trends and possible causes," *Suburban Sustainability*: Vol. 1: Iss. 1, Article 2. DOI: <http://dx.doi.org/10.5038/2164-0866.1.1.2>

Effective July 1, 2014, the State of California strictly limited the use of SGARs to professionals only. California is the only state in the country to designate SGARs as restricted use—understanding that these products are safe in the hands of professionals. SGARs have been available to the general public up until four years ago, however, non-licensed individuals can still purchase these materials online. Patience, time, and directed enforcement efforts, especially in the ecommerce realm, are necessary to witness the full potential and intended positive effects of the 2014 policy change.

The structural pest management industry is confident that existing restrictions on the use of SGARs by consumers and limiting the use of these products to trained and certified professionals are sufficient to protect non-target animals.

Further Regulate E-Commerce and Limit Restricted Material Products to Professionals

In the 21st Century, with the expansion of ecommerce and internet sales, laws restricting and regulating pesticides at the federal and state levels have been more difficult to enforce, but by allocating the proper resources, directing focus on the areas of need, and enforcing the law—federal and state regulatory agencies can adapt. Instead of rushing to reevaluate SGARs, DPR should attempt to eradicate the illegal online sales of SGARs to non-licensed residents in California and enforce existing law. Addressing online sales to non-licensed consumers should occur before any reevaluation of SGARs is considered and undertaken.

Pursuant to 3 CCR 6400, retailers cannot sell SGARs to anyone in California except for licensed professionals, as SGARs are designated as Restricted Materials. Unfortunately, websites are still selling SGARs to unlicensed persons living in California through the internet. With ease, people can order and ship these products to California addresses without any verification of a pesticide license. We suspect that the exploitation of this loophole does not give the Restricted Material designation pursuant to 3 CCR 6400 and use restrictions pursuant to 3 CCR section 6471 a chance to yield positive outcomes for California's environment and non-target wildlife.

The Illegal Use of Pesticides by Unlicensed Individuals Hampers Risk Mitigation Efforts

The fight to shutdown illegal marijuana grow sites and reduce the dangerous misuse of rodenticides by illegal growers on public and private lands is necessary to protect wildlife from potential exposure to pesticides. To combat illegal grow sites CDFW established the Marijuana Enforcement Team (MET) in 2013, "The team's primary duties include detection and apprehension of transnational criminal organization cartel suspects whose illegal cultivation of black-market marijuana poses an ever-growing public safety and environmental threat. The teams then work to rehabilitate the sites and attempt to restore the damaged habitat."¹⁷ Unfortunately, CDFW reached less than 1% of the sites in 2014 and only had 16 staff members dedicated to patrolling illegal marijuana farms.¹⁸ According to the US Forest Service, "It typically costs from

¹⁷ "Wildlife Officers Remove Cannabis Grow Site from CDFW Wildlife Area," CDFW News, October 05, 2018, <https://cdfgnews.wordpress.com/2018/10/05/wildlife-officers-remove-cannabis-grow-site-from-cdfw-wildlife-area/>.

¹⁸ The Times Editorial Board, "Cleaning up after California's Pot Farmers," *Los Angeles Times*, September 23, 2015, <https://www.latimes.com/opinion/editorials/la-ed-marijuana-environment-20150922-story.html>.

\$30,000 to \$70,000 per site to have hazmat contractors assess and remove hazardous and non-hazardous chemicals and other debris.”¹⁹ Governor Brown budgeted \$3.3 million in 2014 to boost enforcement, but experts estimate that the state needs \$25 million a year to eradicate these illegal operations and enforce environmental laws.²⁰

Despite the current lack of sufficient funding, we are encouraged to see efforts to ramp-up enforcement of the law and go after these sites. According to a press release from the Attorney General’s office dated October 4, 2018:

California Attorney General Xavier Becerra today announced the arrest of 52 individuals as part of the Campaign Against Marijuana Planting (CAMP) Program, which is the largest illegal marijuana eradication program in the nation. This year, CAMP eradicated 614,267 plants in over 254 illegal grow sites across the state. Agents also seized 110 weapons... In the course of the operation, CAMP teams protected public resources against misuse and safeguarded public land and water from illegal pesticides.²¹

This is a positive development in protecting wildlife from potential exposure. The focus must be on cracking down on these sites, cleaning them up, and closing the online loophole that these illegal growers are using to obtain SGARs.

CONCLUSION

In conclusion, rodenticides are an indispensable tool used by a highly regulated professional industry to protect the public from the negative health impacts of rodents and considerations of additional restrictions on the use of these tools should not be entered into lightly. The National Pest Management Association does not support the proposed reevaluation of SGARs. The proposed reevaluation is unwarranted as insufficient evidence has been presented that the legal use of these tools is resulting in non-target wildlife exposure. Finally, we believe that DPR resources are better spent on comprehensive evaluation of the causes of non-target wildlife exposure and focusing on the unlawful online purchases by unlicensed individuals and the criminal use of these products at illegal marijuana grow sites.

We appreciate the opportunity to comment on DPR’s proposal. We encourage DPR to carefully consider these comments as well as comments, studies, and information submitted by SGAR registrants, which we anticipate will provide a more comprehensive understanding of the current knowledge regarding the prevalence and impact of exposure from SGAR products. Please feel free to contact us with any additional questions or for more information.

¹⁹ "Strategic Plan," Johnston Ridge Observatory | US Forest Service, <https://www.fs.fed.us/inside-fs/curtailing-cost-illegal-marijuana-grow-site-clean>.

²⁰ The Times Editorial Board, "Cleaning up after California's Pot Farmers," *Los Angeles Times*

²¹ "Attorney General Becerra Announces 52 Arrests Across 40 Counties as Part of Statewide Campaign to Combat Illegal Cannabis Grows," State of California - Department of Justice - Office of the Attorney General, October 04, 2018, <https://oag.ca.gov/news/press-releases/attorney-general-becerra-announces-52-arrests-across-40-counties-part-statewide>.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jim Fredericks".

Jim Fredericks, Ph.D.
Vice President, Technical & Regulatory Affairs
National Pest Management Association

A handwritten signature in blue ink, appearing to read "Jake B Plevelich".

Jake Plevelich
Director of Public Policy
National Pest Management Association