

# PESTICIDE REPORTS

Division of Agricultural Sciences and Natural Resources • Oklahoma State University  
<http://pested.okstate.edu>



## February, 2025

## CHEM

- 1 NEW TESTING SITES FOR 2025
- 2 EPA RELEASES DRAFT BIOLOGICAL OPINION FOR CARBARYL FOR PUBLIC COMMENT
- 3 EPA SHARES FISH AND WILDLIFE SERVICE'S FINAL ENDANGERED SPECIES ACT BIOLOGICAL OPINION FOR METHOMYL
- 4 EPA SIGNS JOINT STATEMENT OF COOPERATION WITH U.S. FISH AND WILDLIFE SERVICE TO HELP PROTECT ENDANGERED SPECIES AND SUPPORT SUSTAINABLE AGRICULTURE
- 4 TRENDS IN NEW MOLECULE DEVELOPMENT: HOW CROP PROTECTION COMPANIES ARE DELIVERING INNOVATIVE SOLUTIONS
- 5 SPRAYING NEW CHEMICAL? DO JAR TEST FIRST
- 6 REPORT SHOWS U.S. STATES, COUNTIES EXPERIENCING HIGHEST RODENT ISSUES
- 7 CEU MEETINGS
- 9 ONLINE CEU LINKS
- 10 ODAFF TEST INFORMATION

### NEW TESTING SITES FOR 2025

Two new PSI testing sites are now available in 2025. Weatherford and Durant have been added as locations that applicators can take their certification exams.

Testing started in January at the Weatherford location. The Weatherford testing is at Southwestern Oklahoma State University. The address for the Weatherford location is 1001 N. 7<sup>th</sup> St. Weatherford OK. Morning and afternoon sessions are available.

Durant testing started in February. The Choctaw Nation of Oklahoma is hosting the testing location. The address for the Durant location is 1802 Chukka Hina Drive, Durant OK. Some days have morning sessions others afternoon sessions.

Testing information can be found on our website at <https://extension.okstate.edu/programs/pesticide-safety-education/odaff-pesticide-applicator-testing-procedure/>

Direct link to PSI locations <https://test-takers.psiexams.com/okpest>

(OSU PSEP)

# EPA RELEASES DRAFT BIOLOGICAL OPINION FOR CARBARYL FOR PUBLIC COMMENT

Today, the U.S. Environmental Protection Agency (EPA) is releasing and seeking public comment on the U.S. Fish and Wildlife Service's (FWS) draft biological opinion for the insecticide carbaryl. Carbaryl is a pesticide used on a variety of crops, including field vegetables and orchard crops.

Under the Endangered Species Act (ESA), EPA must ensure that its actions, including many pesticide registration actions, do not jeopardize federally listed endangered or threatened species, or adversely modify their designated critical habitats. When EPA determines in a biological evaluation that use of a pesticide product may affect these species or critical habitats, EPA must initiate formal consultation with FWS, the National Marine Fisheries Service (NMFS), or both (the Services). In response, the Service(s) may develop a biological opinion that determines whether the pesticide will jeopardize listed species or adversely modify critical habitats.

In March 2021, EPA completed its final biological evaluation for carbaryl. EPA's biological evaluation made "likely to adversely affect" determinations for 1,640 listed species and 736 designated critical habitats for carbaryl. A "likely to adversely affect" (LAA) determination means that EPA reasonably expects that at least one individual animal or plant of any listed species may be exposed to these pesticides at a sufficient level to have an adverse effect. This is the case even if a listed species is almost recovered to a point where it may no longer need to be listed.

EPA initiated formal consultation with the Services upon completing these biological evaluations and, in response, FWS has developed a draft biological opinion for carbaryl. In 2024, NMFS completed its final biological opinion for carbaryl. Later this year, EPA will complete implementation of the NMFS BiOp by approving new carbaryl labels reflecting mitigations from the BiOp and

issuing Endangered Species Protection Bulletins that set geographically specific limitations on carbaryl use.

## Biological opinion and next steps

FWS determined in the draft biological opinion that use of carbaryl is likely to jeopardize 78 listed species and adversely modify 14 critical habitats when used as currently registered.

The draft biological opinion proposes measures to avoid jeopardy and adverse modification as well as reduce risks on carbaryl use sites. These proposed measures include ground boom and aerial application restrictions, rain restrictions, and reductions in maximum annual amount and number of applications to various crops, ornamentals, and turf. FWS is also proposing to incorporate mitigation measures from EPA's Insecticide Strategy, once finalized later this year, and refine carbaryl label directions using geographic specific mitigation through Bulletins Live! Two.

After the 30-day public comment period, EPA will provide FWS with the comments received for consideration before FWS finalizes the biological opinion. Following the release of the final FWS biological opinion, EPA will implement the measures described in the FWS final biological opinion.

The FWS draft biological opinion is available for public comment for 30 days in docket [EPA-HQ-OPP-2024-0579](#) at [www.regulations.gov](http://www.regulations.gov).

[Read the Draft Biological Opinion for Carbaryl.](#)

(EPA, January 7, 2025)

<https://www.epa.gov/pesticides/epa-releases-draft-biological-opinion-carbaryl-public-comment>

# **EPA SHARES FISH AND WILDLIFE SERVICE’S FINAL ENDANGERED SPECIES ACT BIOLOGICAL OPINION FOR METHOMYL**

The U.S. Environmental Protection Agency (EPA) is sharing the U.S. Fish and Wildlife Service’s (FWS’s) final biological opinion (BiOp) for the pesticide methomyl. The final biological opinion released today only covers species under FWS’s purview.

Under the Endangered Species Act (ESA), EPA must ensure that its actions, including many pesticide registration actions, do not jeopardize listed species or adversely modify their designated critical habitats. If EPA determines in a biological evaluation that use of a pesticide product may affect these listed species or critical habitats, EPA must initiate consultation with FWS and the National Marine Fisheries Service (NMFS), or both (the Services). In response, the Service(s) may develop a biological opinion that determines whether the pesticide will result in jeopardy or adverse modification.

## **Background on Methomyl**

Methomyl is an insecticide used on a variety of crops, including field vegetables and orchard crops. In March 2021, EPA completed its final biological evaluation for methomyl, which made “likely to adversely affect” determinations for 1,098 listed species and 281 critical habitats. An LAA determination means that EPA reasonably expects that at least one individual animal or plant of any listed species may be exposed to these pesticides at a sufficient level to have an adverse effect. EPA initiated formal consultation with the Services upon completing this biological evaluation. NMFS completed its final [BiOp for methomyl](#) in February 2024 for species under its purview.

## **FWS Biological Opinion**

EPA initiated formal consultation with the Services upon completing the biological evaluation and, in response, FWS developed a draft biological opinion for methomyl,

which was posted for a 60-day public comment period in July 2024. The draft BiOp included FWS's determinations that, under the ESA, methomyl is likely to jeopardize 82 listed species and adversely modify 34 critical habitats when used as currently registered. The draft BiOp also suggested general categories of potential reasonable and prudent alternatives (RPAs), which are mitigation measures to prevent jeopardy to the species or adverse modification of the critical habitat.

Since the draft BiOp was published, FWS worked with EPA, the methomyl registrants, and the U.S. Department of Agriculture (USDA) to develop and agree upon species-specific measures to protect the federally threatened and endangered (listed) species for which FWS made jeopardy or adverse modification determinations in the July 2024 draft BiOp. These measures found in the final BiOp include spray drift and runoff reduction measures and on-field mitigation measures for a subset of species. These geographically specific measures will be implemented through pesticide product labeling, directing users to access the EPA’s Bulletins Live! Two platform to determine whether there are mitigations needed where the product is to be applied. EPA will publish Bulletins on this platform to inform users of these geographically specific measures. FWS has determined that, with the inclusion of these mitigation measures, the registered uses of methomyl will not result in jeopardy determinations. This means that FWS does not anticipate that this pesticide will jeopardize listed species or adversely modify critical habitats when used in accordance with updated label language that is reflected in the biological opinion.

In addition to measures that FWS, EPA, USDA and the registrants identified and agreed upon that allowed FWS to issue a no jeopardy biological opinion, the opinion also includes measures to minimize take of listed species and impacts to critical habitat including development of training and educational materials for methomyl applicators and reporting of ecological incidents, water quality monitoring data, and use and usage information. EPA will work with registrants of methomyl products to implement these mitigation measures and all components of the FWS biological opinion.

The final biological opinion can be found on [EPA's website](#) and is also linked from docket [EPA-HQ-OPP-2024-0290](#) on [www.regulations.gov](#).

(EPA, January 16, 2025)  
<https://www.epa.gov/pesticides/epa-shares-fish-and-wildlife-services-final-endangered-species-act-biological-opinion>

## **EPA SIGNS JOINT STATEMENT OF COOPERATION WITH U.S. FISH AND WILDLIFE SERVICE TO HELP PROTECT ENDANGERED SPECIES AND SUPPORT SUSTAINABLE AGRICULTURE**

The U.S. Environmental Protection Agency (EPA) and the U.S. Fish and Wildlife Service (FWS) signed a Joint Statement of Cooperation to better align EPA's strategies for protecting endangered species from exposure to pesticides with FWS's consultation processes. This coordination will help EPA meet its obligations under the Endangered Species Act (ESA) and allows both agencies to increase the efficiency of consultations which are required when pesticide actions may affect endangered species. Improving consultation efficiency increases flexibility for the agricultural community and keeps pest management tools in farmers' hands, while protecting endangered species.

The Joint Statement establishes a formal understanding of how EPA plans to further the conservation and recovery of FWS listed species under section 7(a)(1) of the ESA, which requires all Federal agencies to have programs for the conservation of endangered and threatened species. Under the Joint Statement, the agencies plan to work together to streamline consultations for conventional pesticide actions, meeting the ESA section 7(a)(2) requirement for Federal agencies to ensure that their actions are not likely to jeopardize

the continued existence of any listed species or its critical habitat.

The Joint Statement references EPA's section 7(a)(1)/7(a)(2) Plan — which EPA worked with FWS to develop and describes how EPA will identify conservation measures through development and implementation of multi-chemical approaches including the [Herbicide Strategy](#). The multi-chemical approaches will reduce population-level impacts from pesticide use, and thus during section 7(a)(2) consultation, reduce the likelihood of population-level impacts to groups of listed species. EPA's section 7(a)(1)/7(a)(2) Plan provides more detailed information and should be considered a companion document to the Joint Statement.

The Joint Statement and 7(a)(1)/7(a)(2) Plan are the result of successful coordination between the agencies and are available on [EPA's website](#).

(EPA, January 15, 2025)  
<https://www.epa.gov/pesticides/epa-signs-joint-statement-cooperation-us-fish-and-wildlife-service-help-protect>

## **TRENDS IN NEW MOLECULE DEVELOPMENT: HOW CROP PROTECTION COMPANIES ARE DELIVERING INNOVATIVE SOLUTIONS**

Bringing new active ingredients (AI) to market is a lengthy, expensive, and challenging process ... and each decade, the costs and time increase, [writes Nicole Wisniewski at AgriBusiness Global](#).

Every product that reaches the market today costs approximately \$286 million and takes 11 years of research and development (R&D) to ensure the highest safety and efficacy standards, according to a report by Phillips McDougall, commissioned by [CropLife International](#), [CropLife America](#), and the [European Crop Protection Association](#).

That's an increase of 55% since the turn of the century.

It's no surprise that, as a result, the pace of new product introductions based on new AIs has tapered off in the last several years.

While the number of AIs companies bring to market decreases, regulatory challenges continue to mount. The process might not be getting any easier, but companies are continuing to invest, driven by one major goal — safeguarding yield.

According to the [Food and Agriculture Organization](#), farmers will have to feed an estimated 9.7 billion people by 2050, requiring a productivity increase of 50% over the next 20 to 30 years, while also tackling climate change and protecting finite natural resources.

“We must use everything in our toolbox, including new crop protection products, new seed varieties, and new digital tools,” says Dr. Juergen Huff, Senior Vice President, R&D Crop Protection at [BASF Agricultural Solutions](#). “Our innovation target is to help farmers achieve not only more, but better yield — yield produced in ways that meet the demands of future generations.”

The regulatory landscape continues to become trickier to navigate for businesses trying to collect farmer input and rapidly create and deliver the products they need. This is in large part because of much stronger scrutiny of each AI's environmental impact.

(CropLife, February 4, 2025)  
<https://www.croplife.com/crop-inputs/trends-in-new-molecule-development-how-crop-protection-companies-are-delivering-innovative-solutions/>

## SPRAYING NEW CHEMICAL? DO JAR TEST FIRST

You mix up chemicals and fill the sprayer. You turn it on and what drips out of nozzles looks like mayonnaise. So, you look in the tank. What you see resembles cottage cheese. You pull a hose off the boom supplying nozzles, and it is plugged with the white substance. What went wrong?

Obviously, something you added didn't “play nice” with something else in the mix.

“If you are just using water as carrier, you probably won't have these problems,” says Aaron Hager, University of Illinois Extension weed control specialist. “When you begin mixing multiple herbicides or use nutrients as the carrier, it is more likely these problems could show up.

“If you are mixing several things or mixing herbicides and other carriers, performing a jar test first should be standard practice today. It allows you to see how products will mix with each other on a very small scale, instead of finding out when you put them into a whole tank of spray.”

Fred Whitford, director of Purdue Pesticide Programs, notes that while this is good advice, many farmers don't take the time to do it. “Yet they find time to clean out the sprayer and remove the mess,” Whitford says.

### Think about spray mix compatibility

Jeff Nagel, a field agronomist with Keystone Cooperative near Lafayette, Ind., works with farmers to avoid these problems. He notes that perhaps you're using a generic herbicide this year because it's cheaper, and it may not have the same adjuvants and surfactants as products you've used before. That can affect compatibility.

**Related:**[Importance of selecting the right soybean seed treatments](#)

“We also have more growers applying sulfur, and some sulfur products have mixing issues in certain cases,” Nagel says. “We have done quite a bit of jar testing recently, often for people who are applying sulfur. We want to make sure what they’re adding to the tank won’t cause problems.”

Nagel developed his own calculator tool to make sure he mixes products in the same ratio in jar tests as in actual spray solution. It takes some math to ensure you are conducting a fair test, he notes.

### **Jar test how-to**

“A jar test simulates what occurs in a tank-mixture and will provide evidence of physical incompatibilities such as separation, settling, inversions and oil residue buildup,” Whitford explains. He published a booklet, “Avoid Tank-Mixing Errors,” PPP-122, which covers the basics of conducting a jar test. [Download it for free.](#)

“Even if you’re making the ‘same’ tank-mix you’ve always prepared, you should still conduct a jar test to help identify potential compatibility issues that may occur with even slightly different inert ingredients,” Whitford says. He says even slight adjustments could affect compatibility of a product with others in the tank-mix. If you change water sources and the pH or hardness is different, that also could affect the mixture.

Pesticide labels often include information about how to conduct jar tests, Whitford notes. Commercial kits are available. Find the kit highlighted in PPP-122 at [precisionlab.com](#).

The University of Nebraska also offers publications, videos and a step-by-step jar test calculator at [pested.unl.edu](#).

(FarmProgress January 2, 2025)  
<https://www.farmprogress.com/crop-protection/spraying-new-chemical-do-jar-test-first>

## **REPORT SHOWS U.S. STATES, COUNTIES EXPERIENCING HIGHEST RODENT ISSUES**

With winter in full swing, rodent infestations have become an unwelcome reality for millions of Americans. As temperatures drop, mice and rats seek warmth and food indoors, turning homes into their seasonal havens. According to the [American Housing Survey](#), 11.6 percent of households nationwide report rodent problems annually, impacting an estimated 16.2 million homes and 38.5 million people—comparable to the entire population of California.

According to the Centers for Disease Control and Prevention (CDC), rats and mice can spread diseases such as hantavirus, leptospirosis and salmonella through their droppings, urine and nests. They also worsen asthma and allergies, particularly in children. Beyond health hazards, rodents cause structural damage by gnawing through walls, wiring, and insulation—sometimes even sparking electrical fires.

Using the most recent data available from the U.S. Census Bureau, [Cinch](#) reported the U.S. locations with the most severe rodent problems:

While home age and urbanization play a key role in rodent infestations, climate is another factor influencing regional differences. States located in colder regions, particularly in the Midwest and Northeast, report the highest percentages of homes affected by rodents. Vermont leads with 24.1 percent of households experiencing rodent issues, followed by South Dakota (23.2 percent) and North Dakota (22.9 percent). Other states with high rates include Iowa (22.2 percent) and Maine (21.2 percent).

These areas endure long, harsh winters that drive rodents indoors in search of warmth and shelter. Additionally,

older housing stock and rural living conditions in these regions provide ample access points and nesting opportunities for rodents.

In contrast, warmer states like Florida and Arizona report significantly lower rodent infestation rates, with only 4.4% of households affected. Nevada (4.8 percent) and Hawaii (5.7 percent) also rank among the states with the fewest rodent problems. Mild winters in these areas reduce the need for rodents to invade homes, while newer housing stock and higher urbanization levels limit entry points and make it harder for rodents to establish themselves indoors.

The rapid growth and modern development in states like Florida and Arizona have resulted in better-sealed homes, further reducing the likelihood of infestations. It's important to note, though, that cockroach infestations are more common in these warmer climates, reflecting a different challenge for pest control.

Similar trends hold at the county level with those in the Midwest and Northeast reporting the highest rates of rodent sightings.

Philadelphia County, Penn., leads with 29.6 percent of households reporting rodent problems, followed by Summit County, Ohio (21.8 percent), and the District of Columbia (20.5 percent). Counties in Massachusetts also rank highly, with Essex County (20.1 percent), Suffolk County (19.5 percent), and Worcester County (17.4 percent) all ranking among the top 10.

Palm Beach County, Fla., has the smallest percentage of homes affected among large counties at just 2.1 percent, followed by Lee County, FL (2.6 percent), and Maricopa County, AZ (3.1 percent). Counties in Florida dominate the bottom of the list, reflecting the state's mild winters and newer housing stock that limit rodent activity indoors. Counties in Texas, Nevada, and California also appear in the bottom tier, where modern construction and urbanization further reduce rodent presence.

(PCT, January 31, 2025)  
<https://www.pctonline.com/news/report-shows-us-states-counties-experiencing-highest-rodent-issues/>

## CEU Meetings

Please note that some of these meetings are virtual using Zoom or Microsoft Teams. Please contact the meeting host directly if you have any questions.

### **Date: February 11, 2025**

Title: Greenhouse Pests

Location: US Environmental Protection Agency (Virtual)

Contact: Dr. Marcia Anderson (908)-577-2982

<https://www.epa.gov/ipm/upcoming-integrated-pest-management-webinars>

CEU's:	Category(s):
1	3C
1	10

### **Date: February 11, 2025**

Title: Mesonet Spray Tools

Location Contact Sequoyah County Extension for location

Contact: Todd Trennepohl (918)-775-4538

CEU's:	Category(s):
1	1a
1	Private
1	10

### **Date: February 13, 2025**

Title: El Reno Farm Show/OSU Extension Seminars

Location Canadian County Expo Center El Reno OK

Contact: Kyle Worthington (405)-262-0155

CEU's:	Category(s):
2	1a
2	Private
2	10

**Date: February 14, 2025**

Title: Central OK Cattle Conference  
Location: Contact Payne County Extension for location  
Contact: Jennifer Kay Patterson (918)-575-3497

CEU's:                   Category(s):  
2                         1a  
2                         Private  
1                         10

**Date: February 20, 2025**

Title: OSU Pecan Pest Management Workshop  
Location: Gordon Cooper Technology Center in Shawnee  
Contact: Becky Carroll (405)-744-6139  
<https://extension.okstate.edu/announcements/oklahoma-pecan-management/pecan-pest-management-workshop.html>

CEU's:                   Category(s):  
5                         1a  
5                         Private  
5                         10

**Date: February 27, 2025**

Title: SiteOne Landscape CEU Meeting  
Location: Contact SiteOne for location  
Contact: Brian Jones. (941)-416-3164

CEU's:                   Category(s):  
1                         7  
1                         7B

**Date: February 27, 2025**

Title: Helena 2025 Turfgrass Professional Education Session  
Location: Contact Helena for location  
Contact: Michael Kenty, Ph.D. (901)-409-6525

CEU's:                   Category(s):  
1                         3A

**Date: March 5, 2025**

Title: 2025 OKVMA SPRING CONFERENCE  
Location: Champion Convention Center OKC  
Contact: Kiersten Riggs (918)-314-9032  
<https://okvma.com/conferences/>

CEU's:                   Category(s):  
4                         1A  
4                         3A  
3                         5  
5                         6  
2                         7A  
1                         7C  
5                         10  
1                         11A  
2                         A

**Date: March 6, 2025**

Title: Vesperis 2025 Annual CEU Workshop  
Location: Tulsa  
Contact: Erin Monteagudo (512)-721-3945

CEU's:                   Category(s):  
1                         3A  
**1**                         3C  
1                         7A  
1                         7B  
1                         7C  
1                         8  
1                         10

**Date: March 10, 2025**

Title: Understanding Soil Test Results  
Location: ECKROAT SEED COMPANY Contact for location  
Contact: Mike Link (405)-317-8484

CEU's:                   Category(s):  
1                         3A



**Date: March 13, 2025**

Title: Spring Pasture & Beef Management Seminar  
Location: Payne County Extension Contact for location  
Contact: Jennifer Kay Patterson (918)-575-3497

CEU's:	Category(s):
2	1a
2	Private
2	10

**Date: April 8, 2025**

Title: Cimarron Ag Conference  
Location: Payne County Extension Contact for location  
Contact: Jennifer Kay Patterson (918)-575-3497

CEU's:	Category(s):
2	1a
2	Private
2	10

**ODAFF Approved Online CEU Course Links**

**Online Pest Control Courses**  
<https://www.onlinepestcontrolcourses.com/>

**PestED.com**  
<https://www.pested.com/>

**Certified Training Institute**  
<https://www.certifiedtraininginstitute.com/>

**WSU URBAN IPM AND PESTICIDE SAFETY EDUCATION PROGRAM**  
<https://pep.wsu.edu/rct/recertonline/>

**CEU University**  
<http://www.ceuschool.org/>

**Technical Learning College**  
<http://www.abctlc.com/>

**All Star Pro Training**  
[www.allstarce.com](http://www.allstarce.com)

**Wood Destroying Organism Inspection Course**  
[www.nachi.org/wdocourse.htm](http://www.nachi.org/wdocourse.htm)

**CTN Educational Services Inc**  
<https://ctnedu.com/>

**Pest Network**  
<http://www.pestnetwork.com/>

**Veseris**  
<http://www.pestweb.com/>

**AG CEU Online**  
<https://agceuonline.com/courses/state/37>

**Target Specialty Products Online Training**  
<https://www.target-specialty.com/training/online-training>

**American Pest CEUs** <https://americanpestceus.com/>

**Pestschool.com** <https://pestschool.com/>

For more information and an updated list of CEU meetings, click on this link:  
<http://www.kellysolutions.com/OK/applicators/courses/searchCourseTitle.asp>

## ODAFF Test Information

Testing will be done at testing centers in multiple locations around the state by PSI Services LLC.

For more information and instructions, please go to <https://bit.ly/3sF4y0x>.

**Reservation must be made in advance** at [www.psiexams.com/](http://www.psiexams.com/) or call **855-579-4643**

### PSI locations.

Oklahoma City 3800 N Classen Blvd, Ste C-20,  
Oklahoma City, OK 73118

Tulsa 2840 E. 51st Street, Brittany Square Office Park,  
Suite 215, Tulsa, OK 74105

McAlester 21 East Carl Albert Parkway (US Hwy 270),  
McAlester, Oklahoma 74501

Woodward 1915 Oklahoma Ave, Suite 3, Woodward,  
OK 73801

Lawton Great Plains Technology Center, 4500 West  
Lee Blvd Building 300- RM 308, Lawton, OK 73505

Enid Autry Technology Center, 1201 W. Willow Rd,  
Room 402, Enid, OK 73703

Ponca City Pioneer Technology Center, 2101 N Ash,  
Ponca City, OK 74601

South Penn - Moore Norman Technology Center  
13301 S. Pennsylvania, Oklahoma City OK

Weatherford-Southwestern Oklahoma State University  
1001 N 7<sup>th</sup> St. Weatherford OK

Durant-Choctaw Nation of Oklahoma  
1802 Chukka Hina Drive, Durant oK

If you have questions on pesticide certification. Please  
email or call:

Kevin Shelton  
405-744-1060 [kevin.shelton@okstate.edu](mailto:kevin.shelton@okstate.edu) or

Charles Luper  
405-744-5808 [charles.luper@okstate.edu](mailto:charles.luper@okstate.edu)

**Pesticide Safety  
Education Program**