



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Date: February 17, 2021

MEMORANDUM

SUBJECT: Updated Label Language for the *Pyrethroids and Pyrethrins Revised Ecological Risk Mitigation and Response to Comments on the Ecological Risk Mitigation Proposal For 23 Chemicals*, September 30, 2020

FROM: Moana Appleyard, Senior Regulatory Advisor *Moana Appleyard*
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A handwritten signature in black ink, appearing to read "Khue Nguyen".

THROUGH: Cathryn Britton, Chief *Cathryn Britton*
Risk Management and Implementation Branch 5
Pesticide Re-evaluation Division (PRD)

TO: Special Docket for Pyrethroids, Pyrethrins, and Synergists
[EPA-HQ-OPP-2008-0331](https://www.epa.gov/pesticides/special-docket-pyrethroids-pyrethrins-synergists)

Introduction:

This document announces updated label language for the *Pyrethroids and Pyrethrins Revised Ecological Risk Mitigation and Response to Comments on the Ecological Risk Mitigation Proposal For 23 Chemicals*, dated September 30, 2020 and published on October 29, 2020. In response to registrant questions on the pyrethroid Interim Registration Review Decisions (IDs), which published at the same time, EPA is providing updated label language, with clarifying information on the type of products and uses that require the new registration review label language to be submitted to the Agency. The following pyrethroid cases are affected by the revised labeling noted in this memorandum: esfenvalerate, bifenthrin, cyfluthrin, deltamethrin, permethrin, phenothrin, prallethrin, tau-fluvalinate, and tetramethrin. EPA is issuing Amended Interim Registration Review Decisions for these cases.

Background:

EPA announced the availability of thirteen pyrethroid registration review IDs on October 29, 2020, which require mitigation in the form of revised label language to be submitted to

the Agency within 120 days of publication. After the publication of these IDs, EPA received about 20 inquiries from various registrants of different pyrethroids, for clarification on which types of products/uses were affected under the new label requirements. Most registrants requested clarification on the type of formulations (liquid or granule) required to list the revised label language.

EPA is providing updated label language, for products with outdoor urban and mosquito adulticide uses. The changes noted herein are the only required updates; all other elements of the September 2020 *Pyrethroids and Pyrethrins Revised Ecological Risk Mitigation and Response to Comments on the Ecological Risk Mitigation Proposal For 23 Chemicals*, remain in effect. See the docket [EPA-HQ-OPP-2008-0331](https://www.regulations.gov/docket/EPA-HQ-OPP-2008-0331) at www.regulations.gov) for additional information.

Updated Appendix B Label Table

Unless otherwise noted in the **Appendix B. Revised Label Table with changes in red text**, listed below, all other elements of the *Pyrethroids and Pyrethrins Revised Ecological Risk Mitigation and Response to Comments on the Ecological Risk Mitigation Proposal For 23 Chemicals*, dated September 30, 2020 remain in place. Changes to the labeling in Appendix B, include the following:

- **Outdoor Urban Use**
 - The Agency is including clarification in the description to the “General Outdoor Application Statement,” to specify that the application restrictions include residential outdoor surface and space sprays and exempt outdoor fogging devices.
 - For the “Buffer from Water Statement” and the “Water Protection Statements,” the Agency is including clarification that the label language is required for both liquid and granule formulations.
- **Mosquito Adulticide Use**
 - The Agency is adding clarifying statements to the table description, to clarify that this label language is intended for adult mosquitocide applications, and not aerial applications.

Labeling Requirements from the Reregistration Eligibility Decisions (RED)s

A number of chemicals in the pyrethroids group, including the pyrethrins, permethrin, prallethrin, etofenprox, and cyfluthrin have products with labels that currently do not include labeling requirements from the REDs. These products are listed below in **Table 1. Pyrethroids and Pyrethrins Products that Require Mitigation from the Reregistration Eligibility Decision (RED). Products containing these chemicals are required to include mitigation required by the RED in the revised labels submitted to the Agency, provided the language does not contradict the language required in the ID.** Changes identified in the registration review interim decisions supersede any conflicting label changes from the previously required RED mitigation. As of January 2021, pyrethrins and etofenprox do not have published Proposed Registration Review Decisions or Interim Registration Review Decisions. When the decisions for pyrethrins

and etofenprox become available, the products listed in Table 1 containing those chemicals, must include the mitigation from the RED for those chemicals **and** the revised labeling listed in Appendix B of this document.

Note: Products that do not have mitigation required by the [pesticide name] Reregistration Eligibility Decision (RED), must include it on the revised labels provided it does not contradict the language required below.


Appendix B. Revised Label Table with changes in red text

Description	Required Label Language for [insert pyrethroid] End Use Products	Placement on Label				
All [insert pesticide] End Use Products (unless specified otherwise)						
<p>Mode of Action Group Number</p> <p><i>Applies only to products with agricultural and/or wide-area mosquito uses</i></p>	<p>Note to registrant:</p> <ul style="list-style-type: none"> • Include the name of the ACTIVE INGREDIENT in the first column • Include the word “GROUP” in the second column • Include the MODE/MECHANISM/SITE OF ACTION CODE in the third column (for fungicides this is the FRAC Code, and for insecticides this is the Primary Site of Action; for Herbicides this is SITE OF ACTION) • Include the type of pesticide (i.e., INSECTICIDE) in the fourth column. <table border="1" data-bbox="464 894 1619 1097"> <tr> <td data-bbox="464 894 674 1097">Pyrethroid Name</td> <td data-bbox="674 894 835 1097">GROUP</td> <td data-bbox="835 894 1234 1097">3A</td> <td data-bbox="1234 894 1619 1097">INSECTICIDE</td> </tr> </table>	Pyrethroid Name	GROUP	3A	INSECTICIDE	<p>Front Panel, upper right quadrant.</p> <p>All text should be black, bold face and all caps on a white background, except the mode of action code, which should be white, bold face and all caps on a black background; all text and columns should be surrounded by a black rectangle.</p>
Pyrethroid Name	GROUP	3A	INSECTICIDE			
<p>Resistance-management labeling statements for insecticides</p> <p><i>Applies only to products with agricultural and/or wide-area mosquito uses</i></p>	<p>Include resistance management label language for insecticides/acaricides from PRN 2017-1 (https://www.epa.gov/pesticide-registration/pesticide-registration-notice-year)</p>	<p>Directions for Use, prior to directions for specific crops</p>				

<p>Updated Gloves Statement</p>	<p>Update the gloves statements to be consistent with Chapter 10 of the Label Review Manual. In particular, remove reference to specific categories in EPA’s chemical-resistance category selection chart and list the appropriate chemical-resistant glove types to use.</p>	<p>In the Personal Protective Equipment (PPE) within the Precautionary Statements and Agricultural Use Requirements, if applicable</p>
<p>Updated Respirator Language</p>	<p>[Note to registrant: If your end-use product only requires protection from particulates only (low volatility), use the following language:] “Wear a minimum of a NIOSH-approved particulate filtering facepiece respirator with any N*, R or P filter; <u>OR</u> a NIOSH-approved elastomeric particulate respirator with any N*, R or P filter; <u>OR</u> a NIOSH-approved powered air purifying respirator with HE filters.” *Drop the “N” option if there is oil in the product’s formulation and/or the product is labeled for mixing with oil-containing products.</p> <p>[Note to registrant: For respiratory protection from organic vapor and particulates (or aerosols), use the following language:] “Wear a minimum of a NIOSH-approved elastomeric half mask respirator with organic vapor (OV) cartridges and combination N*, R, or P filters; <u>OR</u> a NIOSH-approved gas mask with OV canisters; <u>OR</u> a NIOSH-approved powered air purifying respirator with OV cartridges and combination HE filters.”</p> <p>[Note to registrant: <u>For products requiring protection for organic vapor only,</u> use the following language:] “Wear a minimum of a NIOSH-approved elastomeric half mask respirator with organic vapor (OV) cartridges; <u>OR</u> a NIOSH-approved full face respirator with OV cartridges; <u>OR</u> a gas mask with OV canisters; <u>OR</u> a powered air purifying respirator with OV cartridges.”</p> <p>*Drop the “N” option if there is oil in the product’s formulation and/or the product is labeled for mixing with oil-containing products.</p>	<p>In the Personal Protective Equipment (PPE) within the Precautionary Statements</p>
<p>Additional Required Labeling Action. Applies to all products delivered via liquid spray applications (except those with mosquito adulticide use)</p>	<p>Remove information about volumetric mean diameter from all labels <u>delivered via liquid spray application, except from products with mosquito adulticide use,</u> where such information currently appears.</p>	<p>Directions for Use</p>

End-use products with indoor residential uses

For all products that have indoor uses only	Add the following language: “For indoor use only.”	Front Label Panel and/or Directions for Use
For all products that have both indoor and outdoor uses	Add the following language: “For both indoor and outdoor use.”	Front Label Panel and/or Directions for Use
For all products used on pets	Add the following language: “Application of product on pets must only be done indoors.”	Directions for Use
Required disposal statement for products not labeled for use directly into drains and sewers.	“Do not pour or dispose down-the-drain or sewer. Call your local solid waste agency for local disposal options.”	Storage and Disposal

<p>Stewardship statement that includes a Spanish translation (Stewardship statement not required for products applied to pets)</p>	<p>Note to registrants: If adding stewardship statements on end-use consumer products, the followings language is required and placed in a prominent location:</p> <p>For products without drain treatment uses: “Do not allow to enter indoor or outdoor drains” <i>“No permita la entrada a desagües internos o externos.”</i></p> <p>For products with drain treatment uses: “Do not allow to enter indoor or outdoor drains unless labeled for drain treatments.” <i>“No permita la entrada a desagües internos o externos a menos que el etiquetado indique que está permitido el uso del producto para tratamiento de desagües.”</i></p> <p>For products with and without drain treatment uses: “Follow proper disposal procedures on this label” <i>“Siga las indicaciones del etiquetado para el desecho apropiado del producto.”</i></p> <p>Graphic on the product package showing an image of a diagonal strikethrough over a drain. The pictogram must be legible (i.e. no smaller than 1.5 square centimeters or 0.25 square inches unless this size is greater than 10% of the size of the label).</p> <p>Use the following pictogram on product labels:</p> 	<p>Directions for Use</p>
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End-use products with outdoor, urban, non-agricultural uses

<p>For all products that have outdoor uses only</p>	<p>Add the following language: “For outdoor use only.”</p>	<p>Front Label Panel and/or Directions for Use</p>
<p>For all products that have both indoor and outdoor uses</p>	<p>Add the following language: “For both indoor and outdoor use.”</p>	<p>Front Label Panel and/or Directions for Use</p>
<p>General Outdoor Application Statement to replace existing general outdoor statement Application Restrictions for Residential Outdoor Surface and Space Sprays; excludes outdoor fogging devices</p> <p>[Registrants may not add new uses from items 1-6 which are not currently on the existing label. Registrants are required to choose only the uses from items 1-6 which apply to their product.]</p>	<p>“All outdoor spray applications must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses:</p> <ol style="list-style-type: none"> 1. Application to pervious surfaces such as soil, lawn, turf, and other vegetation; 2. Perimeter band treatments of 7 feet wide or less from the base of a man-made structure to pervious surfaces (e.g., soil, mulch, or lawn); 3. Applications to underside of eaves, soffits, doors, or windows permanently protected from rainfall by a covering, overhang, awning, or other structure; 4. Applications around potential exterior pest entry points into man-made structures such as doorways and windows, when limited to a band not to exceed one inch; 5. Applications to vertical surfaces (such as the side of a man-made structure) directly above impervious surfaces (e.g., driveways, sidewalks, etc.), up to 2 feet above ground level; 6. Applications to vertical surfaces directly above pervious surfaces, such as soil, lawn, turf, mulch or other vegetation) only if the pervious surface does not drain into ditches, storm drains, gutters, or surface waters.” 	<p>Directions for Use</p>

Spot Treatment Guidance Statement	“Spot treatments must not exceed two square feet in size (for example, 2 ft. by 1 ft. or 4 ft. by 0.5 ft.).”	Directions for Use
Buffer from Water Statement for granular and liquid formulations	“For soil or foliar applications, do not apply by ground within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.”	Directions for Use
Water Protection Statements for granular and liquid formulations	<p>“Do not apply the product into fish pools, ponds, streams, or lakes. Do not apply directly to sewers or storm drains, or to any area like a drain or gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur.”</p> <p>“Do not allow the product to enter any drain during or after application.”</p> <p>“Do not apply directly to impervious horizontal surfaces such as sidewalks, driveways, and patios except as a spot or crack-and-crevice treatment.”</p> <p>“Do not apply or irrigate to the point of runoff.”</p>	Directions for Use
Rain-Related Statements (except for products that require watering-in)	<p>"Do not make applications during rain. Avoid making applications when rainfall is expected before the product has sufficient time to dry (minimum 4 hours)."</p> <p>“Rainfall within 24 hours after application may cause unintended runoff of pesticide application.”</p>	Directions for Use
Wind speed requirement for ornamental/recreational turf applications	“Do not apply when the wind speed is greater than 15 mph.”	Directions for Use
Spray drift management for commercial nurseries	<p>For outdoor applications to commercial nurseries:</p> <ul style="list-style-type: none"> • “Do not apply when the wind speed is greater than 15 mph.” • “Applicators are required to select the nozzle and pressure that deliver a medium or coarser droplet size (ASABE S572)” 	Directions for Use

	<ul style="list-style-type: none"> • “For soil or foliar applications, do not apply by ground equipment within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.” 	
Crack and crevice treatments	<ul style="list-style-type: none"> • “Treat surfaces to ensure thorough coverage but avoid runoff.” • “To treat insects harbored in voids and cracks-and-crevices, applications must be made in such a manner to limit dripping and avoid runoff onto untreated structural surfaces and plants.” 	Directions for Use

End-use products with agricultural uses		
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Enforceable Spray Drift Management Language for products that allow aerial applications	<p>Aerial Applications:</p> <ul style="list-style-type: none"> • Do not release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety. • Applicators are required to select nozzle and pressure that deliver medium or coarser droplets (ASABE S641). • Do not apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters. • If the windspeed is 10 miles per hour or less, applicators must use ½ swath displacement upwind at the downwind edge of the field. When the windspeed is between 11-15 miles per hour, applicators must use ¾ swath displacement upwind at the downwind edge of the field. • Do not apply during temperature inversions. 	Directions for Use, in a box titled “Mandatory Spray Drift Management” under the heading “Aerial Applications” Placement for these statements should be in general directions for use, before the use-specific directions for use.
Enforceable Spray Drift Management Language	<p>Airblast Applications:</p> <ul style="list-style-type: none"> • Sprays must be directed into the canopy. • Do not apply when wind speeds exceed 15 mph at the application site. • User must turn off outward pointing nozzles at row ends and when spraying outer row. • Do not apply during temperature inversions. 	Directions for Use, in a box titled “Mandatory Spray Drift Management” under the heading “Airblast Applications”
Enforceable Spray Drift Management Language for	<p>Ground Boom Applications:</p>	Directions for Use, in a box titled “Mandatory

<p>products that allow ground boom applications</p>	<ul style="list-style-type: none"> • User must only apply with the nozzle height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy. • •Applicators are required to select nozzle and pressure that deliver medium or coarser droplets (ASABE S572). • Do not apply when wind speeds exceed 15 mph at the application site. • Do not apply during temperature inversions. 	<p>Spray Drift Management” under the heading “Ground Boom Applications”</p>
<p>Advisory Spray Drift Management Language for all products that allow aerial and ground boom uses</p>	<p>THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.</p> <p>IMPORTANCE OF DROPLET SIZE</p> <p>An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.</p> <p>Controlling Droplet Size – Ground Boom</p> <ul style="list-style-type: none"> • Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate. • Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size. • Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift. <p>Controlling Droplet Size – Aircraft</p> <ul style="list-style-type: none"> • Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight. <p>BOOM HEIGHT – Ground Boom</p> <ul style="list-style-type: none"> • For ground equipment, the boom should remain level with the crop and have minimal bounce. 	<p>Directions for Use, just below the Spray Drift box, under the heading “Spray Drift Advisories”</p>

	<p>RELEASE HEIGHT - Aircraft</p> <ul style="list-style-type: none"> Higher release heights increase the potential for spray drift. <p>SHIELDED SPRAYERS</p> <ul style="list-style-type: none"> Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area. <p>TEMPERATURE AND HUMIDITY</p> <ul style="list-style-type: none"> When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation. <p>TEMPERATURE INVERSIONS</p> <ul style="list-style-type: none"> Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions. <p>WIND</p> <ul style="list-style-type: none"> Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift. <p>NON-TARGET ORGANISM ADVISORY STATEMENT (Environmental Hazards):</p> <ul style="list-style-type: none"> This product is highly toxic to bees and other pollinating insects exposed to direct treatment or to residues in/on blooming crops or weeds. Protect pollinating insects by following label directions intended to minimize drift and reduce pesticide risk to these organisms. 	
<p>Advisory Spray Drift Management Language for all</p>	<p>“SPRAY DRIFT ADVISORIES Handheld Technology Applications:</p>	<p>Directions for Use, just below the Spray Drift</p>

<p>products that allow liquid applications with handheld technologies</p>	<ul style="list-style-type: none"> • Take precautions to minimize spray drift.” 	<p>box, under the heading “Spray Drift Advisories”</p>
<p>Vegetative Filter Strips (This does not apply to pyrethrins) Not intended for use on rice Note: This requirement is separate and in addition to buffer zones to aquatic areas, which are still required if a vegetated filter strip is present.</p>	<p>“VEGETATIVE FILTER STRIPS Construct and maintain a vegetative filter strip, according to the width specified below, of grass or other permanent vegetation between the field edge and nearby down gradient aquatic habitat (such as, but not limited to, lakes; reservoirs; rivers; streams; marshes or natural ponds; estuaries; and commercial fish farm ponds).</p> <p>Only apply products containing (name of pyrethroid) onto fields where a maintained vegetative filter strip of at least 25 feet exists between the field edge and where a down gradient aquatic habitat exists. This minimum required width of 25 feet may be reduced or removed under the following conditions:</p> <ul style="list-style-type: none"> • For Western irrigated agriculture, a maintained vegetative filter strip of at least 10 feet wide is required. Western irrigated agriculture is defined as irrigated farmland in the following states: WA, OR, CA, ID, NV, UT, AZ, MT, WY, CO, NM, and TX (west of I-35). <ul style="list-style-type: none"> ○ For Western irrigated agriculture, if a sediment control basin is present, a vegetative filter strip is not required. • In all other areas, a vegetative filter strip with a minimum width of 25 feet is required, unless the following conditions are met. The vegetative filter strip requirement may be reduced from 25 feet to 15 feet if at least one of the following applies: <ul style="list-style-type: none"> ○ The area of application is considered prime farmland (as defined in 7 CFR § 657.5). ○ Conservation tillage is being implemented on the area of application. Conservation tillage is defined as any system that leaves at least 30% of the soil surface covered by residue after planting. Conservation tillage practices can include mulch-till, no-till, or strip-till. ○ A functional terrace system is maintained on the area of application. ○ Water and sediment control basins for the area of application are functional and maintained. ○ The area of application is less than or equal to 10 acres. <p>For further guidance on vegetated filter strips, refer to the following publication for information on constructing and maintaining effective buffers: Conservation Buffers to Reduce Pesticide Losses. Natural Resources Conservation Services. https://www.regulations.gov/document?D=EPA-HQ-OPP-2008-0331-0175”</p>	<p>Directions for Use</p>

<p>Buffer Zones to Water Bodies</p>	<p>Ground Application</p> <ul style="list-style-type: none"> • “Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).” <p>Ultra Low Volume (ULV) Aerial Application</p> <ul style="list-style-type: none"> • “Do not apply within 450 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds). Applications made by mosquito control districts and other public health officials are exempt from this requirement.” <p>Non-ULV Aerial Application</p> <ul style="list-style-type: none"> • “Do not apply within 150 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).” 	<p>Directions for Use</p>
<p>New text to include under Environmental Hazard statements: (For liquid products formulated for outdoor foliar applications to agricultural row crops.)</p> <p><i>Excludes products formulated for residential use and/or Ultra Low Volume (ULV) wide area mosquito control applications</i></p>	<p>Update the Environmental Hazard with the bolded statement:</p> <p>“This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area. Protect pollinating insects by following label directions intended to minimize drift and to reduce risk to these organisms.”</p>	<p>Environmental Hazard</p>
<p>Link to pollinator best management practices (For liquid products formulated for outdoor foliar applications to agricultural row crops.)</p> <p><i>Excludes products formulated for residential use and/or Ultra</i></p>	<p>“Following best management practices can help reduce risk to terrestrial pollinators. Examples of best management practices include applying pesticides in the evening and at night when pollinators are not foraging and checking to confirm hive locations before spraying. For additional resources on pollinator best management practices, visit https://www.epa.gov/pollinator-protection/find-best-management-practices-protect-pollinators.”</p>	<p>Directions for Use, prior to crop specific directions</p>

<p><i>Low Volume (ULV) wide area mosquito control applications</i></p>		
<p>Information on state managed pollinator protection plans (For liquid products formulated for outdoor foliar applications to agricultural row crops.)</p> <p><i>Excludes products formulated for residential use and/or Ultra Low Volume (ULV) wide area mosquito control applications</i></p>	<p>“Managed pollinator protection plans are developed by states/tribes to promote communication between growers, landowners, farmers, beekeepers, pesticide users, and other pest management professionals to reduce exposure of bees to pesticides. If available, visit state plans for additional information on how to protect pollinators.”</p>	<p>Directions for Use, prior to crop specific directions</p>
<p>Information on how to report bee incidents (For liquid products formulated for outdoor foliar applications to agricultural row crops.)</p> <p><i>Excludes products formulated for residential use and/or Ultra Low Volume (ULV) wide area mosquito control applications</i></p>	<p style="text-align: center;">“How to Report Bee Kills</p> <p style="text-align: center;">It is recommended that users contact both the state lead agency and the U.S. Environmental Protection Agency to report bee kills due to pesticide application. Bee kills can be reported to EPA at beekill@epa.gov. To contact your state lead agency, see the current listing of state pesticide regulatory agencies at the National Pesticide Information Center’s website: http://npic.orst.edu/reg/state_agencies.html.”</p>	<p>Directions for Use, prior to crop specific directions</p>

End-use products with wide-area mosquito uses

Enforceable Spray Drift Management Language for products that allow ~~airial~~ mosquito adulticide applications

- Apply when ground wind speeds are equal to or greater than 1 mph.
 - All types of applications should be conducted when temperatures at ground level are at or above 50°F.
- “For Ground Applications:
- Create an optimum swath when possible. An optimum swath width can be achieved when [product name] is applied from a truck that is being driven perpendicular to the wind direction. Direct the spray head of equipment to ensure even distribution of the spray cloud throughout the area.
 - FOR BEST RESULTS treat when mosquitoes or insects are most active and weather conditions are conducive to keeping the spray cloud in the air column close to the ground.
 - An inversion of air temperatures and a light breeze is preferable. Application during the cooler hours of the night or early morning is recommended.”
- “For Aerial Applications:
- Do not apply by fixed wing aircraft at a nozzle height less than 100 feet (30.5 m) above ground or canopy, or by helicopter at a height less than 75 feet (22.9 m) above the ground or canopy, unless specifically approved by the state or tribe based on public health needs.”

Directions for Use, in a box titled “Mandatory Spray Drift Management” under the heading “Ultra Low Volume Applications”

Enforceable Spray Drift Management Language for products that allow ~~airial~~ mosquito adulticide applications

- “Adult mosquito control applications should be limited to trained personnel.
- For use only by federal, state, tribal or local government officials responsible for public health or vector control or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their supervision, or as allowed by state regulations for persons treating private property”.

Directions for Use, in a box titled “Mandatory Spray Drift Management” under the heading

	<ul style="list-style-type: none"> • This pesticide is [toxic/extremely toxic]¹ to aquatic organisms. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to aquatic organisms. • Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material beyond the body of water to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or wash waters. • Before making the first application in a season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist. • Do not treat a site with more than (X amount)* of each a.i., per acre in a single application or in any 24-hour period. Do not exceed (X amount)* of a.i. in any site in one year. More frequent applications may be made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease-causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.” <p>*Note to registrants: X amount must be on the previously approved label</p>	<p>“Ultra Low Volume Applications”</p>
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¹ Registrants should follow EPA’s guidance in [Chapter 8](#) of EPA Label Review Manual to determine which version of this statement is appropriate.

Table 1. Pyrethroids and Pyrethrins Products that Require Mitigation from the Reregistration Eligibility Decision (RED)

Pyrethroid and Pyrethrins products requiring mitigation from the RED				
Registration #	Name	Company #	Company Name	Active Ingredient
279-9553	INTRUDER RESIDUAL WITH CYFLUTHRIN	279	FMC CORPORATION	Pyrethrins
279-9553	INTRUDER RESIDUAL WITH CYFLUTHRIN	279	FMC CORPORATION	Cyfluthrin
498-182	CHAMPION SPRAYON MULTI-PURPOSE INSECT KILLER	498	CHASE PRODUCTS CO.	Permethrin
1021-1810	PYROCIDE FALCON 7452	1021	MCLAUGHLIN GORMLEY KING COMPANY, D/B/A MGK	Pyrethrins
2517-26	DOUBLE DUTY FLEA & TICK SPRAY	2517	SERGEANT'S PET CARE PRODUCTS, LLC	Pyrethrins
2517-70	SERGEANT'S RESIDUAL FLEA AND TICK SPRAY	2517	SERGEANT'S PET CARE PRODUCTS, LLC	Permethrin
2517-70	SERGEANT'S RESIDUAL FLEA AND TICK SPRAY	2517	SERGEANT'S PET CARE PRODUCTS, LLC	Pyrethrins
2517-71	SERGEANT'S RESIDUAL FLEA & TICK SPRAY II	2517	SERGEANT'S PET CARE PRODUCTS, LLC	Permethrin
2517-71	SERGEANT'S RESIDUAL FLEA & TICK SPRAY II	2517	SERGEANT'S PET CARE PRODUCTS, LLC	Pyrethrins

2517-120	ZEMA RESIDUAL FLEA & TICK SPRAY FOR DOGS	2517	SERGEANT'S PET CARE PRODUCTS, LLC	Permethrin
2517-120	ZEMA RESIDUAL FLEA & TICK SPRAY FOR DOGS	2517	SERGEANT'S PET CARE PRODUCTS, LLC	Pyrethrins
2724-404	ZOECON RF-322 OVICIDAL PUMP SPRAY	2724	WELLMARK INTERNATIONAL	Pyrethrins
2724-459	ZOECON 9007 CONCENTRATE	2724	WELLMARK INTERNATIONAL	Pyrethrins
2724-674	SPEER PY-PERM AQUEOUS INSECT KILLER #2	2724	WELLMARK INTERNATIONAL	Pyrethrins
2724-674	SPEER PY-PERM AQUEOUS INSECT KILLER #2	2724	WELLMARK INTERNATIONAL	Permethrin
2724-701	ETOFENPROX IGR HOME AND CARPET SPRAY 1(2)	2724	WELLMARK INTERNATIONAL	Prallethrin
2724-701	ETOFENPROX IGR HOME AND CARPET SPRAY 1(2)	2724	WELLMARK INTERNATIONAL	Etofenprox
2724-777	LINALOOL PLUS CARPET POWDER	2724	WELLMARK INTERNATIONAL	Pyrethrins
3862-4	SPACE SPRAY NO. 3	3862	ABC COMPOUNDING CO., INC	Pyrethrins
4713-5	KENYA PYRETHRUM EXTRACT REFINED CONCENTRATE	4713	PYRETHRUM BOARD OF KENYA	Pyrethrins
7401-455	HI-YIELD 10% PERMETHRIN CONCENTRATE	7401	VOLUNTARY PURCHASING GROUPS, INC.	Permethrin
8329-36	ULV MOSQUITO MASTER 412	8329	CLARKE MOSQUITO CONTROL PRODUCTS, INC.	Permethrin

8329-73	ULV MOSQUITO MASTER 2+6	8329	CLARKE MOSQUITO CONTROL PRODUCTS, INC.	Permethrin
8698-3	PROPET FLEA & TICK DOG SHAMPOO	8698	SPECTRUM BRANDS PET GROUP, INC. D/B/A UNITED PET GROUP, INC.	Pyrethrins
10088-96	CONTACT INSECTICIDE	10088	ATHEA LABORATORIES INC	Pyrethrins
10807-199	MISTY DUALCIDE P3 RTU	10807	AMREP, INC	Permethrin
10807-433	KONK TOO FLYING INSECT KILLER DAIRY AEROSOL	10807	AMREP, INC	Pyrethrins
10807-435	KONK FLYING INSECT KILLER	10807	AMREP, INC	Pyrethrins
10807-442	TIME-MIST METERED INSECTICIDE	10807	AMREP, INC	Pyrethrins
11556-166	PERMECTRIN II	11556	ELANCO US INC.	Permethrin
11694-110	THE END	11694	ITW PRO BRANDS	Pyrethrins
11694-110	THE END	11694	ITW PRO BRANDS	Permethrin
11930-2	OMEGO MIST 30-30 MAC	11930	GIL MFG INC.	Permethrin
28293-126	UNICORN PERMETHRIN DUST	28293	PHAETON CORP., D/B/A UNICORN LABORATORIES	Permethrin
28293-355	UNICORN 2.5% PERMETHRIN READY TO SPRAY	28293	PHAETON CORP., D/B/A UNICORN LABORATORIES	Permethrin
47000-121	AQUEOUS INSECTICIDE	47000	CHEM-TECH, LTD.	Pyrethrins
47000-127	SELCO PYRENONE EMULSIFIABLE CONCENTRATE	47000	CHEM-TECH, LTD.	Pyrethrins

47000-172	SMCP GENERAL PURPOSE HOUSEHOLD SPRAY #10	47000	CHEM-TECH, LTD.	Pyrethrins
47000-176	R & M 30-3 PYRETHRIN E.C.	47000	CHEM-TECH, LTD.	Pyrethrins
53883-72	PERMETHRIN 10 EWC	53883	CONTROL SOLUTIONS, INC.	Permethrin
67197-3	PERMA GUARD GARDEN AND PLANT INSECTICIDE D-21	67197	PERMA-GUARD, INC.	Pyrethrins
67197-6	PERMA-GUARD COMMERCIAL INSECTICIDE D-20	67197	PERMA-GUARD, INC.	Pyrethrins
67503-2	MEDACHIEVE MULTI-PURPOSE 10% E.C.	67503	MEDACHIEVE INC	Permethrin
91658-1	JS 685	91658	ANTON INTERNATIONAL INC.	Pyrethrins