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Region 5 Comments on OPP Mister Labeling Options (dated 2-2-06)

Issue: Pesticides, other than those currently registered for this use, being used in residential outdoor misting systems.

R5: Have all of the currently registered products been evaluated specifically for use in residential misting systems? Even existing labels for products registered for misting systems are not detailed or specific enough and require modification.

This delivery system presents a significantly different exposure scenario than other application methods typically evaluated in risk assessments. Virtually any residential outdoor insecticide might be used in a misting system and should be evaluated as such. The options presented here don't really address the lack of human and ecological risk assessments for this type of use. The Agency needs to address all of the different actives for use against a range of pests under a variety of settings (restaurants, yards, supermarkets, hospitals, schools, daycare centers, nursing homes. etc). If one considers all the possibilities, then these misting systems become quite unmanageable.

If EPA chooses to address misting systems strictly for mosquito control and not all the other pests for which the systems are currently advertised and used, EVERY label must have specific directions for mosquito control AND strictly prohibit use in misting systems against other pests.

TPED has stated that if a product label is not explicit for this type of application / use pattern, then any system with pesticide commercially installed and "left" with the property owner would be the distribution or sale of a pesticide not registered under Section 3 of the Act. Note that a pesticide product is defined at 40 CFR 152.3 and includes " ... any physical apparatus used to deliver or apply the pesticide if distributed or sold with the pesticide."

Possible Labeling Options:

- Include a statement on MUPs specifying if the product may (may not) be formulated into an end use product for use in an outdoor misting system.

R5: Putting such a statement on a MUP would be irrelevant if outdoor misting systems are not specifically allowed/disallowed on the end use label. How would the person formulating the product know whether it would be used in a misting system if that's not indicated on the end-use product label?

- If supported by MUP, MUP label should state that if an EUP is to be used in an outdoor misting system, the EUP label must contain separate and distinct application rates and use-directions for application by an outdoor misting system.

R5: Absolutely! And any product not allowed in a misting system should contain explicit language prohibiting such use. Outdoor misting systems are advertised for use in many diverse and creative ways. These application approaches raise questions about the ability to deliver the pesticide according to the general application rates shown on the label. Specific use directions should ensure that

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these systems can be used in a manner that allows for proper application. Existing labels that allow for mister use are too generic and do not address most of the concerns raised about misting systems. All labels must be much more detailed and specific!

Given the vast number of potential products and different pests involved, perhaps use in misting systems should be limited to certain products and certain pests under certain settings. Again, these would have to be specified on the label with all other uses in misters being strictly prohibited.

Issue: Potential risks of concern to humans and non-target species from the use of the systems.

R5: We believe it is the Agency's responsibility to only issue product registrations for sites/use patterns that are protective. To not fully assess this type of unique application pattern will lead to a multitude of drift/chemical trespass situations.

Possible Labeling Options:

- Require Applicators to be licensed or registered by the state to install and maintain outdoor residential mister systems.

R5: The person installing and maintaining the physical system may not be an applicator, and may not need to be if (s)he is not actually applying the pesticide. However, installation and determining the right application settings requires knowledge about the target pest. One standard setting may not be appropriate for the different pests a consumer wishes to control.

States are unlikely to have a program to license or register individuals who install and maintain application devices. This would require the States and Tribes to pass legislation, and develop training and licensing programs for installation and maintenance personnel when they probably don't have the expertise or authority to do so. Is EPA prepared to provide funding/resources to accomplish this?

One option would be to label all products allowed in misters as restricted-use (at least for the mister use), which would require certification and licensing through existing State Certification and Training programs. This would ensure that untrained applicators and the public could not purchase the product or load the systems. Hopefully, it would also prevent the use of on-demand applications if the homeowner is considered the applicator.

- Specific application rate restrictions and use directions would help address this issue.

R5: Specific application rates and use directions are absolutely necessary, and would have to include nozzle size/height/placement/flowrate, along with a lot of other details specific to the target pest, treatment area, and setting or environment (home vs. restaurant). However, without some type of risk evaluation, it is impossible to know whether such directions actually address potential risks.

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- Include a precautionary statement such as “do not apply this pesticide when people, pets, food, food crops, or feed are present.”

R5: Although such language is necessary and many products already contain similar statements, they are difficult to enforce. This would also be hard to control when the system is on a timer or activated by remote control – and who’s responsible if it is applied when people, pets, wildlife, etc are present??.

- Specify nozzle placement be directed away from swimming pools, or pools containing fish and other organisms that may be sensitive to [*insert chemical name*].

R5: Depending on the product, similar language may need to be used for terrestrial organisms, and should also apply to humans gardening or doing other activities in their yard. Some ads show nozzles at eye-level for an adult or a child. Nozzle placement should be a critical part of the use directions.

- Many mosquito species are more active in the evenings, at night, and in the early morning. For best results, registrants may need to specify the system be set to dispense at these times. Such timing may also reduce the exposure to people, pets, non-target flying insects and other non-target animals.

R5: Misting systems are not only used for mosquitoes, but for flies and many other insects which may be active at other times of day. If products are allowed strictly for mosquitoes but no other pests than such a statement may be appropriate. However, people and animals are also active outdoors in the evening, night and early morning, so exposure is still likely. People are also likely to use them around the time they are outside regardless of time of day or pest– isn’t that the purpose?? – so they can “enjoy a bug free yard”.

- Require motion sensors on all systems.

R5: Good idea, but not likely to be practical or effective given that sensors would need to cover the entire perimeter of the application area (how many sensors would that take? and How much would it cost?). Sensors also need to be maintained and are can easily be blocked, tampered with, etc. One would also have to consider the height of placement, direction, range, obstructions, sensitivity, and what action it triggers (delay/shutdown? For how long?..)

Issue: Off-site drift.

Possible Labeling Options:

- Specify nozzle placement to direct the mist toward the target area minimizing the potential for off-site drift.

R5: “Target area” is a pretty broad/undefined term. The person may want the target area to be the entire yard or a tall hedgerow along the property line – how does that minimize drift?

- Specify the height for placement of nozzles which maximizes efficacy and reduces off-site movement of sprays. For example, the Agency understands that nozzles installed at a height greater than 10 feet decreases the efficacy of the product, and increases the potential for drift and potential exposure to non-target species.

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R5: Setting a maximum height is good, but even placing nozzles at 6-8 feet can result in drift (e.g. to neighboring properties, gardens). Efficacy and height of the nozzles will depend more on the pests in question, site specific conditions, the product used, and a host of other factors.

- A wind sensor installed on the system to automatically shut off the mister when wind speed exceeds 10 mph would decrease the potential for off-site drift. Mosquitoes are not active below 50 degrees; a temperature sensor could reduce the amount of pesticide applied. Additionally, a rain sensor installed to automatically shut off the system when it senses water would prevent the unnecessary use of the system when it is raining.

R5: Do all these sensors exist for this type of use? What is the potential for adjusting/tampering with them once installed and set? Would they be installed along the hoses where the application occurs or some other central location where conditions may differ? (wind and rain in particular can be very different on one side of a building vs another) Do misting companies have the expertise to service and replace these sensors? Can EPA require sensors on “delivery devices”? If voluntary, it’s unlikely to address the drift issue. See additional comments above regarding motion sensors.

Not mentioned here, but labels should also require buffer zones to minimize drift to neighboring properties. For example, not allowing the misters to operate within a specified distance from the property line.

Issue: Encourage homeowners to use integrated pest management (IPM) techniques in conjunction with the Automatic Misting Systems

R5: The whole idea of talking about IPM in the same sentence as misting systems is quite contradictory. Encouraging homeowners to use IPM would never include automatic or regular applications of any pesticide!

Plus, this isn’t enforceable and probably wouldn’t get done.

Possible Labeling Options:

- A number of comprehensive integrated pest management (IPM) solutions will decrease pest pressure. Simply stated and easy to understand IPM practices could be included on the label to assist homeowners to decrease pest pressures. For example,
 - o Remove all standing water from yard prior to installing a system, etc.

R5: IPM on the label!!! That would be great, except the label is a legal document – can EPA require IPM statements on the label even though not enforceable?

There is also no room for this on already overcrowded labels. Who would provide and verify the information to go on the label? Although EPA encourages IPM, I didn’t think we were in the business of providing or verifying pest control advice/direction. Also, the example above only mentions removing water prior to installation, not ongoing removal – that’s not really IPM.

If IPM statements are allowed on the label, the potential pests and circumstances may be far too varied for any tips to be effective anyway. Remember, these systems are not just used for mosquitoes. There is no way to communicate enough

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appropriate and specific enough information on a label for controlling other pests. And does the homeowner actually see/read the label, especially if they're not really the applicator? Who really is the applicator in these circumstances? And who's responsible for following the label – the technician, the homeowner, both or neither?

Similar to the WPS reference approach, perhaps a reference statement on the label could advise the reader to follow IPM methods as described in a brochure developed in partnership by EPA, the National Pest Management Association (NPMA), American Mosquito Control Association (AMCA), etc. This would not be enforceable, and would require development of such a brochure with widespread availability, but other organizations could provide assistance and resources.

- Prior to installing an outdoor misting system, service provider should make recommendations to the homeowner on IPM solutions that may or may not include chemical control.

R5: This is not enforceable, IPM means different things to different people, and the whole idea of misting systems goes against the IPM concept. If they were truly practicing or encouraging IPM, they wouldn't be promoting automatic misting systems.

Issue: Resistance concerns due to overuse of a pesticide product.

R5: Most resistance is best managed through minimizing pesticide use, using products with different modes of action, applying when the pest is most susceptible or reaches a certain threshold, etc. The use of misters is contrary to these concepts.

Although not enforceable, EPA would somehow (via label language?) need to require that operators use different products from different chemical classes or with different modes of action every few months (or other specified time period).

Possible Labeling Options:

- Language on potential resistance if systems are used over wide area.

R5: Resistance should be mentioned on the label. In fact, if EPA “requires” companies to discuss IPM with customers, we should also require them to discuss resistance issues. What's the likelihood of this happening in reality? What would this language look like given that misting systems are intended to apply product over a wide area? Who is going to monitor or evaluate whether resistance occurs when neither pest control operators nor the public are qualified to make such determinations? How would this be enforced?

- Include a label statement that restricts use if a mosquito abatement program is in effect, such as do not apply this product _ hours before or after a mosquito abatement program application occurs within _ feet of the system.

R5: This would also be difficult/impossible to enforce. People often don't know exactly when mosquito trucks go by, and if they're installing a misting system to deal with insects, they're not likely to take the time to find out and adjust the system accordingly. They can also argue that the system isn't for mosquitoes, but other insects, so it may not matter to them.

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If you have a company responsible for servicing the system, but the homeowner can adjust it for various reasons, who's really responsible for operating the system? What changes can homeowners make themselves? Again, who's responsible for following the label? Who would the applicator be and who's responsible for the applications if misused/overused, if it causes damage when used according to the label, etc???

Issue: Potential for misuse, or use of pesticide in a manner that is inconsistent with its labeling.

R5: Again, who is the applicator -- the technician or the homeowner, or both depending on the circumstances? Remote access and the ability for the customer to make adjustments to the system create some unique issues here. On-demand vs timed applications need to be addressed. It gets a bit complicated to address some label statements to the technician or servicing company and some to the homeowner when there is such a wide range of circumstances under which misting systems can be operated. If the homeowner can operate the system in any way, label language should include specific directions to them. And the technician should be required to provide the label to the homeowner at the time of installation as well as at each subsequent visit. This would be in addition to securing the label to the pesticide tank. Lack of enforceability is an issue here too.

Possible Labeling Options:

- Include label language that would prevent the misuse of these systems, such as instructing the installer to lock the reservoir tank after it has been loaded, prohibit the pesticide product to be used in an evaporative cooling system, and ensure that the timer is set to operate in accordance with the directions for use.

R5: Additional container security measures also need to be in place.

- Securely attach the end use pesticide label and a dilution statement to the system reservoir tank in a weather protected area or plastic sleeve. The dilution statement must be phrased as follows: this container holds ___ parts water to ___ parts [*product name*].
- Require an override function that shuts down both automatic and manual systems when the maximum daily application rate has been reached.

R5: An override function would be nice if available, but current technology is probably not advanced enough to gauge this with misters, and the cost and maintenance would be prohibitive. The length of tubing, number of nozzles, target area, etc affects the amount of product applied. Therefore, it may be difficult to determine the maximum application rate, and whether effective concentrations are actually reaching the target pest.

- Include the maximum application rate (i.e. _ pounds active ingredient per 1000 cubic feet per day) to be applied per day (also express this as pounds or gallons of end-use product formulation). Labels must specify the appropriate application parameters, (such as spray dilution, nozzle flow rate, nozzle coverage area, droplet size, and total spray duration per day), in order to arrive at this daily application rate.

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Issue: Certification, training, or notification criteria for installers of these systems.

Possible Labeling Options:

- Check with your state, tribal, or local authority to determine if other requirements apply, such as notification and/or pesticide applicator certification requirements.