

Automated Mosquito Misting Systems



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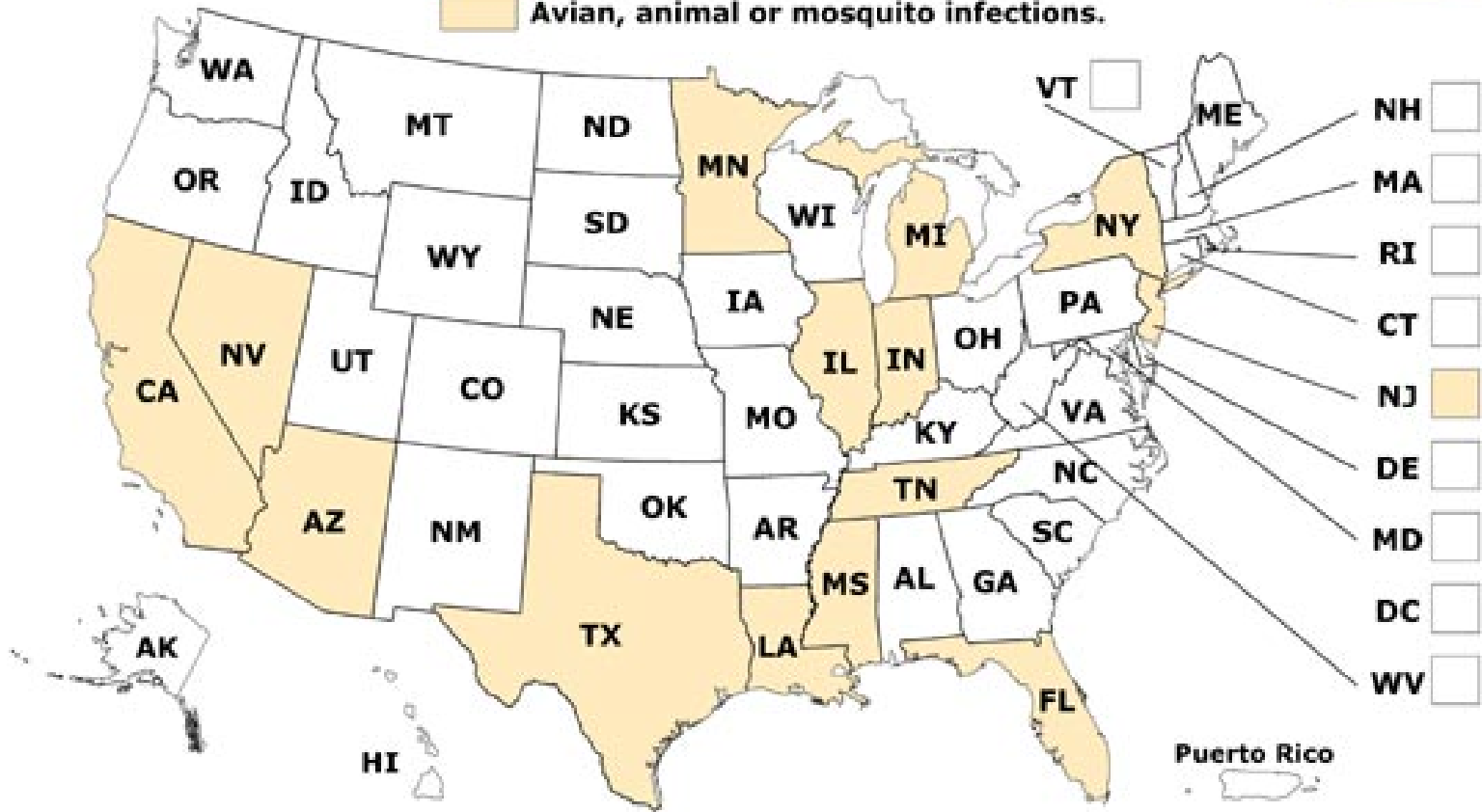
Opportunity knocks

- West Nile Virus onset in US - 1999
 - Human Cases
 - 2003 – 9,862 Cases; 264 Deaths
 - All states w/ reported cases
 - Highest - CO (63), TX (37), NE (29), SD (14)
 - 2004 – 2,535 Cases; 98 Deaths
 - Highest – CA (28), AZ (16)

2005 WNV Activity



 Indicates human disease case(s).
 Avian, animal or mosquito infections.



When the Door is Left Open

- Misting systems utilized historically in agriculture around barns, pens, or other structures on the farm or commercial use
- Now marketed for homeowner use
- Took advantage of initial 'panic' w/ WNV
- 'Total Protection for Your Family and Loved Ones'

'Fully Automated Systems'



‘We can place the nozzles near your children's favorite places to play.’



‘The system can be directed towards the pool, protecting you and your family’



Typical System

- Misting nozzles are installed around the structure or property perimeter.
- Lines run to a reservoir (25 – 50 gallons) containing the misting concentrate.
- A timer mechanism, located at the reservoir and can be set to mist based on 'anticipated' need.
- Systems can include an optional remote control & may be activated to mist between scheduled times if necessary.
- Systems which include any of the optional weather sensors ensure the system does not unnecessarily mist during inclement weather.



MISTER MOSQUITO

exterminate mosquitoes!



States Attempt to Bar the Door

- Region 6 states seeing heavily marketing for systems - 'franchise opportunities'
- Primarily to construction, landscape maintenance, property management – little or no pesticide experience
 - Installation primary focus – maintenance optional service
- Prompted Issue Paper to SFIREG

Problems Attributed to System Use in Residential Areas

● **Uncertified Applicators**

- marketed and installed by companies with no experience or knowledge of pesticides
- Many are not required to obtain pesticide licensing if only install

● **Unsubstantiated Claims**

- internet used to advertise the service. Improper public health protection claims are being made on these sites

● **Off Site Drift**

- set to automatically spray often with no effect on the pest
- Spray drift in windy and/or rainy conditions
- Installed systems spraying around homes under the eaves, around pools, dining patios and play structures without regard for possible consequences on neighboring property

● **Human Exposure Risks**

- In 2000 CDC identified 97 cases of human illness associated with use of automatic insecticide dispensers
- Remote control units allow possible 'control' by children 'playing' with the system harming unsuspecting friends or pets
- Pesticides sold or provided to the homeowners to 'maintain' the system without info on proper mixing, use, disposal, and the potential for harm

● **Non Target or Endangered Species Exposure**

- Use on property bordering wildlife areas may draw animals as a watering source
- Birds may utilize the installed lines to perch and utilize nozzles as a water source
- Unsuspecting birds and mammals may possibly be endangered species

● Misuse

- In NM and other western states, potential for use to be applied to outdoor evaporative cooling, through addition of a pesticide

● Discourages IPM

- Counteractive to use of IPM by Vector Control and Mosquito Abatement Districts
- Allows only a 'perceived' or 'band-aid' effect

● Increased Resistance

- Continual, indiscriminate applications of the pyrethrum or pyrethroid class of insecticides
- Removes tools vital to effective mosquito management programs
- Higher costs to Public Health Programs managing established resistance
- Permethrin resistance documented in species of *Aedes*, *Anopheles*, & 3 *Culex*. Also records of *Aedes* and *Anopheles* resistant to pyrethroids

IP Recommendations

- Since little authority is available to fully regulate automated misting systems as application equipment, and to provide the most direct solution, EPA should specifically disallow this use in urban environments
- Labels should specifically prohibit the use of pesticides in automated misting systems in residential (including both single and multifamily dwellings) areas, including schools and daycares
- Regulatory officials will then have the authority to regulate this use as a label violation
- This action is also necessary to maintain EPA's goal of promotion of Integrated Pest Management (IPM) and protection of the environment and public health from pesticide misuse
- EPA has an opportunity for proactive prevention of harm to human health and the environment through issuance of a PR notice to manufacturers, developed to require label language prohibiting residential uses of pesticides in automated misting systems

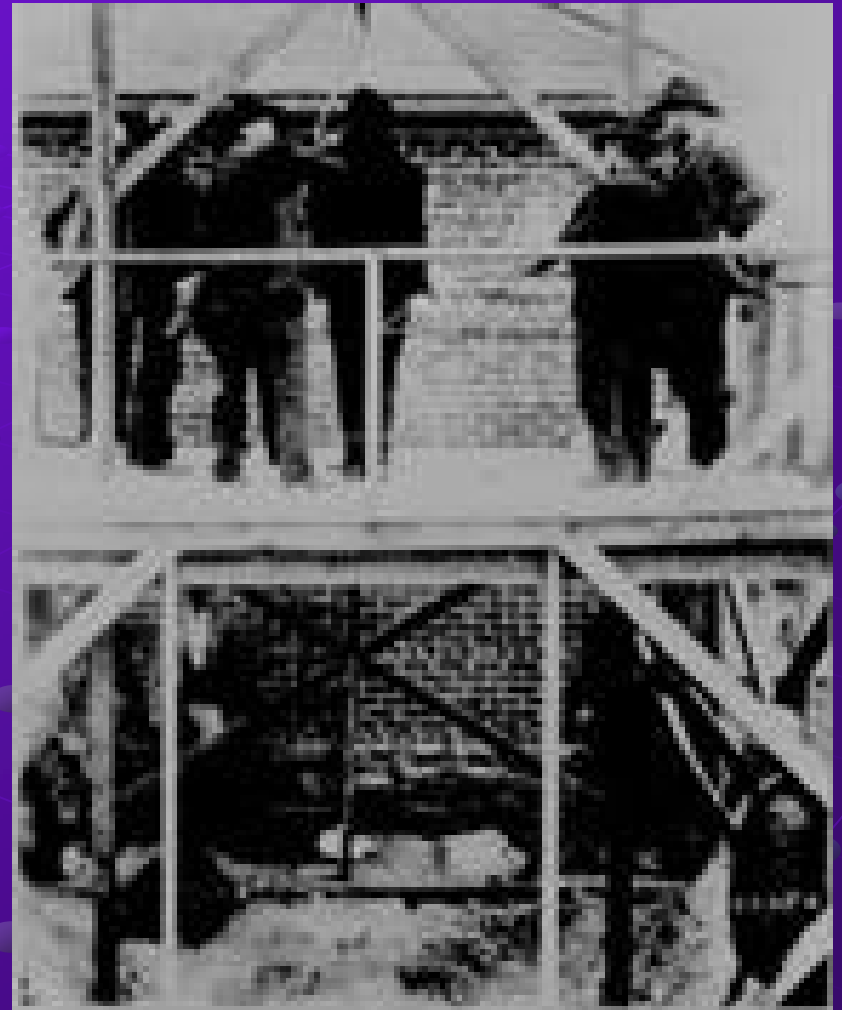
EPA Response

- Not likely to happen
- Difficulty to pursue label language changes or regulation to address
- IP still on table with SFIREG

Ongoing State Action to Address

- Disallowing use
- Policy Statements
- Regulation Changes
- Educating consumers
 - Press release
 - Information on website
- Others?

Typical New Mexico Enforcement Action



Thank You!