Mosquito season is almost upon us and all the experts say that West Nile virus will be back along with those pesky bugs. Last year concerns over this disease stuck fear in the hearts of Americans everywhere and caused a deluge of pesticide applications throughout the country. As of the end of mosquito season 2002 the virus had reached 42 states and the District of Columbia. But what are the real risks from the disease and the chemical response to it? Here are some facts to fend off the fear.

Facts on disease risks of WNv

While the Harvard School of Public Health surveyed Americans in mosquito infested areas and found 33% think that they or a member of their family is very or somewhat likely to get sick from the West Nile virus this coming season, the true incident numbers, even in heavily affected areas, fall far below this percentage. According to the Centers for Disease Control (CDC), in Mississippi in 2002, one of the hardest hit states, the attack rate was 1.7 per 100,000 people statewide and 8 per 100,000 in the hardest hit county. That works out to be only 0.0017% statewide and 0.008% in the highest county that actually tested for the disease. A door-to-door survey conducted in the fall of 1999 in an extremely hard hit area of New York City found that less than 30% of people who tested positive with the disease had reported symptoms, most of which were characterized as mild. Of those surveyed, 10% that did not have the disease reported WNv-like (or flu-like) symptoms. Moreover, a person who has been infected with West Nile virus is likely to have life-long immunity to the disease whether or not they showed symptoms. The survey also found that over half of those surveyed in high-mosquito areas mistakenly believe that West Nile can be contracted through drinking infected water.

Facts on chemical repellents

On the main CDC West Nile web page, the primary prevention strategy is the use of insect repellents containing the pesticide N,N-diethyl-m-toluamide or DEET. Yet, this pesticide has been found to cause neurological effects in rats and has been associated with the physical symptoms of the “Gulf War Syndrome,” especially when combined with permethrin, a CDC recommended mosquito insecticide. According to the CDC Insect Repellent Use and Safety Fact Sheet, DEET is touted as safe and suggests its use in lower concentration for children over the age of two. This recommendation is given even though in 1998 EPA rejected “child-safety” claims of all DEET products. According to EPA, “child-safety claims must be removed from all end-use prod-
...duct labels in order to be reregistered. Child-safety claims are misleading and irreconcilable with the intended use and pesticidal ingredients of DEET products.” This restriction includes DEET containing products with labels such as “For Kids” or “Safe for Children.” In addition to the contradiction of EPA removing all “child-safety” claims while CDC touts DEET as safe for children, EPA states that there is evidence that the concentration of DEET within a product does not affect it safety. This directly contradicts CDC and the American Academy of Pediatrics claims that “a cautious approach is to use products with a low concentration of DEET, 10% or less.”

What is lacking in the CDCs information arsenal is safety information about the pesticides it promotes. According to the New York State Department of Health, during or after widespread aerial or ground spraying of adulticides, adverse health outcomes might include acute asthma attacks, other respiratory problems, or dermatological problems.

What to do if spraying starts
If it is not possible to influence your local government not to conduct community-wide spraying for adult mosquitoes, there are steps you should take to protect yourself and your family. Find out when spraying in your area will take place. It is imperative to stay indoors, close all doors and windows, turn off air conditioners, bring in pets and children’s toys. When you go back outside, wash all toys, furniture, and animal dishes that may have been sprayed.

The hysteria about WNv must be balanced with the truth about the disease and the various approaches to prevent it. Prevention of West Nile virus is best achieved by eliminating or reducing mosquito breeding areas, staying inside during peak mosquito times, and using botanical-based repellents that do not contain DEET.

For more information about West Nile virus, alternative control methods, and how to organize your community, please contact Beyond Pesticides or our website: www.beyondpesticides.org.

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