

Properly used, pesticides offer a variety of benefits to society. They increase crop production, preserve produce, combat infestations and control exotic species. Pesticides also have the potential for causing harm. Approximately 1 billion pounds of pesticide active ingredients are used annually in the U.S., and over 16,000 pesticide products are currently being marketed in the U.S.

The Environmental Protection Agency (EPA) estimates that 10,000 to 20,000 physician-diagnosed pesticide poisonings occur each year among the 3,400,000 U.S. agriculture workers. Agriculture workers, groundskeepers, pet groomers, fumigators and other occupations are at risk for exposure to pesticides, including fungicides, herbicides, insecticides, rodenticides and sanitizers. Surveillance for occupational pesticide-related illnesses and injury is designed to protect workers by determining the magnitude and underlying causes of over-exposure to pesticides in the workplace. Surveillance also serves as an early warning system for any harmful effects not determined by manufacturer testing of pesticides.

The National Institute for Occupational Safety and Health (NIOSH) has developed a manual to provide information on how to develop and maintain surveillance programs for acute and sub-acute health effects from pesticide exposure. NIOSH is targeting state health departments with planned or established pesticide surveillance programs along with local, state, and federal agencies and members of the general public interested in pesticide poisoning.

NIOSH has published this How-To Guide due to the complexity of surveillance of pesticide poisoning.

Pesticide products are often mixtures composed of pesticides and other ingredients that can lead to injury or illness.

The adverse health affects can be the result of an exposure to single dosage of a pesticide, a prolonged exposure or an exposure to a mixture of many pesticide products. It is because of this complex nature of pesticide poisoning and the need for technical resources for case investigation that this manual was developed.

The manual is the guideline for surveillance program development, case investigation, data collection, outreach and education. It is also designed to address issues of capturing pesticides-related illnesses and injuries in workplace and non-workplace settings. It is NIOSH publication No. 2006-102 and it can be ordered from NIOSH at:

NIOSH
Publication Dissemination
4676 Columbia Parkway
Cincinnati, OH 45226-1998

Or

800-35-NIOSH (800-356-4674)

You can also find the guide on the NIOSH Web site at www.cdc.gov/niosh and search for document No. 2006-102 and download the complete manual in a PDF format.

The manual will include a case classification scheme, severity index and sample data collection forms in the appendices, along with the standardized variables and the SENSOR-Pesticides Incident Data Entry and Reporting (SPIDER) software. Together the manual and software are intended to simplify and streamline the surveillance system development process. A final benefit of the manual is that many of the tools and techniques covered can be generalized for surveillance of other occupational and environmental injuries and illnesses.