

PESTICIDE DRIFT ASSIGNMENT

Scenario based on pesticide exposure case in Washington State.

Calvert et al., (2015) Worker Illness Related to Newly Marketed Pesticides – Douglas County, Washington, 2014. MMWR, 64(02): 42-44

SCENARIO

On April 8, 2014, two pesticide applicators were driving a tractor-pulled airblast sprayer to apply a mixture of pesticides to prevent psylla infestations in a pear orchard. At about 1:30 pm the tractors approached the end of the orchard, which abuts a cherry orchard. In the cherry orchard, farmworkers were tying the branches of cherry trees to trellises to improve fruit yields. The workers were dispersed, and their distance from the edge of the pear orchard ranged from 30 to >350 feet (9 to >107 meters). The pesticide mixture included novaluron, pyridaben, and triflumizole, along with mineral oil, boron (a micronutrient), and phosphoric acid (an acidifier, defoaming agent, and fertilizer).

The farmworkers had not been notified of the pear orchard pesticide application before starting work in the cherry orchard. All cherry orchard workers reported feeling ill within minutes of exposure to the drifting pesticides.

The crew leader called 9-1-1. All of the workers reported two or more symptoms consistent with those caused by the pesticides applied to the pear orchard. Sixteen workers eventually sought medical care. Six workers had moderate-severity illness, and the remaining 14 workers had low-severity illness. Most commonly reported symptoms were neurologic (100%; headache and paresthesias), gastrointestinal (95%; nausea), ocular (85%; eye pain/irritation), and respiratory (80%; upper respiratory irritation and dyspnea).

Of the eight workers who were contacted after the incident, six (75%) had symptoms that persisted for at least 2 weeks. The two applicators were wearing complete PPE (including air-purifying respirators and chemical-resistant headgear) and reported no symptoms.

ASSIGNMENT

1. Describe the potential hazards in this situation.
2. What methods of prevention could be implemented to prevent future incidents?
3. How will the revised Worker Protection Standard impact future incidents?
4. Describe whether this resource be useful in your professional activities. Explain why or why not and how you would use it.

Requirements: 1-2 pages, double-spaced, 12-point font.

Resources:

- Hierarchy of Controls (page 2)
- Revised Worker Protection Standard (<https://www.epa.gov/pesticide-worker-safety/revisions-worker-protection-standard>)

Hierarchy of Controls (Source: CDC)

