

Summary of Curry County Pesticide Exposure Incident

Oregon Public Health Division; Pesticide Exposure Safety and Tracking, April 7, 2014

Background:

Several individuals reported being sickened by a pesticide exposure incident that occurred on October 16, 2013, when a pesticide applicator flew over several residences in Curry County, Oregon. From environmental samples taken from residential properties, two active ingredients were detected. The Oregon Department of Agriculture has initially identified the pesticides sprayed over the residential area as triclopyr and 2,4-D. Symptoms known to be associated with these pesticides are listed at the end of this summary.

Tracking pesticide exposures in Oregon:

The Oregon Health Authority (OHA) Public Health Division's Pesticide Exposure Safety & Tracking program (PEST) tracks pesticide exposures in order to understand trends over time, how exposures happen and how they can be prevented. In Oregon, pesticide exposures are a mandatory, reportable condition. Following the October 2013 spraying in Curry County, PEST received two formal reports from a healthcare provider and 25-35 reports from members of the community. Ages of those reported as exposed range from infant to 65-plus years. Symptoms reported include headaches (43%), eye pain and/or eye irritation/itchiness (36%), sore throat (21%) and abdominal pain (21%), among others.

Oregon Department of Agriculture investigation:

Oregon Department of Agriculture (ODA) began an investigation into the incident on October 21, 2013. ODA collected foliage samples, obtained the pesticide application records, consulted with the U.S. Environmental Protection Agency (EPA), and conducted interviews with the helicopter pilot and the affected community members.

OHA/Public Health Division activities:

To date, the Public Health Division has:

- Consulted with Oregon Department of Agriculture to determine who was affected (10/22/13)
- Reached out to Curry County Public Health in an effort to identify additional cases (10/22/13)
- Followed up on reports of symptoms and conducted interviews with affected individuals (10/21/13 – 1/17/14)
- Informed the National Pesticide Information Center (NPIC) of the incident so they could be prepared to receive calls from concerned residents (10/29/13)
- Provided Oregon Department of Agriculture with exposure location information, based on reports from affected residents, in order to assist with locations for foliage sampling (10/30/13)

Community petitions:

On December 12, 2013 a community group petitioned the EPA and the Centers for Disease Control & Prevention (CDC) Agency for Toxic Substances and Disease Registry (ATSDR), for a community study and a moratorium on spraying until the study is completed. ATSDR has acknowledged receiving the petition and it is currently under review. EPA is working with Oregon Department of Agriculture on the ongoing investigation.

Physician request:

On March 26, 2014 a group of physicians requested that OHA Public Health Division investigate the exposure incident, to determine whether the residents' symptoms were consistent with the expected symptoms of toxicity of the chemicals applied. The Public Health Division advises that physicians evaluating patients with potential pesticide exposures can contact the Oregon Poison Center for information (OPC). The OPC hotline is 1-800-222-1222. In addition, the National Pesticide Information Center (NPIC) has information on the health effects of pesticides on their website: <http://npic.orst.edu>.

Summary:

Public Health Division has worked in conjunction with the Oregon Department of Agriculture to identify both the source and the type of pesticide exposure that occurred in Curry County on October 16, 2013. The purpose of a coordinated, multi-agency response is to identify potential sources of exposure and minimize the occurrence of future incidents like this. Regulatory action is currently underway to address this exposure.

Next steps:

Public Health Division has identified several opportunities for clarification, education and outreach. This incident illustrates the need to:

- Assist the public in knowing whom to call and what to do in this type of situation
- Establish a standard procedure for healthcare providers to obtain product information within 24 hours, so they know how to treat their patients
- Clarify reporting requirements for healthcare providers
- Collaborate with local county health departments on how to report exposures, what to communicate to the general public, and where to turn for technical assistance
- Communicate these changes and clarifications on OHA's website

Information about the health effects of triclopyr, 2,4-D and crop oil:**Triclopyr:**

The literature reports no human cases of systemic toxicity from triclopyr. In animal studies, triclopyr has been shown to irritate the eyes and can cause skin sensitization. Triclopyr clears rapidly from the body (half-life in urine is five hours), making cumulative toxicity unlikely. More information can be found at: <http://www.epa.gov/oppsrrd1/REDs/factsheets/2710fact.pdf>.

2,4-D:

The most common symptoms experienced by people exposed to 2,4-D are skin irritation and eye problems. 2,4-D leaves the body fairly quickly (half-life in urine is 18 hours). Additional information can be found at: http://www.epa.gov/oppsrrd1/REDs/factsheets/24d_fs.htm.

Crop oil:

Crop oil was the adjuvant used in the tank mix for Curry County. Crop oil can irritate the eyes and skin, causing redness. When aerosolized crop oil is inhaled it may irritate the mucus membranes, causing a burning sensation in the nose and throat. Swallowing crop oil can cause nausea and vomiting.