



chemical that was sprayed as well.

According to ODA's investigation, what is certain is that pesticide products fell on properties "other than the intended site." Tests showed the chemicals on properties along the route that the pesticide-filled helicopter flew over eight times, three of them with a full load of chemicals. ODA says the pesticides on the properties did not come from pesticide drift but can't say how they got there.

Rickard points out that the testing wasn't done until days after the spray, and she questions why it took so long to get the test results. Residents were originally told only glyphosate (Roundup) was sprayed based on what the applicator, Steve Owen of Pacific Air Research, told investigators. According to ODA, the delay in providing information was related to making sure nothing compromised the investigation and because Owen was not forthcoming with accurate information. Katy Coba, ODA's executive director, says that Owen was "not cooperative" and "provided false information." Owen has not been responding to media inquiries.

Rickard questions how a doctor is supposed to treat someone for a chemical exposure when no one will tell you what you got sprayed with. Burns and other Cedar Valley area residents want to know as well. One horse has gone blind in one eye, another lost hundreds of pounds. Children are having nosebleeds, Burns says, and so is his wife, Barb Burns, a retired emergency room nurse. She says her nose bled for 45 minutes. "It's not a money thing," Barb Burns says of her pursuit of the spray issue. "We are into it to change the laws so they will stop doing this." She adds, "We understand that they feel they have to spray, but not where people live and not in our drinking water."

According to Coba, veterinarians and health officials do have access to the records of what was supposed to be sprayed, but she says that one of the lessons from the investigation was the need to make that clear to health professionals and residents alike. Arkin points out that what a spray notice says might be sprayed is not necessarily what is sprayed. In the situation with Owen, the problem was compounded by his failure to give correct information on what he used.

According to Nick Hennemenn of the Oregon Department of Forestry (ODF), aerial spraying in Oregon is a three-part system. The Environmental Protection Agency (EPA) approves pesticides and labels them for specific use. Oregon requires the pesticides to be registered with the ODA, which licenses application and enforces pesticide control laws. ODF requires a notification of what will be possibly be sprayed.

Rural residents have long criticized the ODF notification system: It's done on paper, the time frame of when a spray will happen ranges from a couple months to as long as a year, and in some cases, with a waiver, the notification can be as short as 15 days. According to ODF, "They are obligated to put in a start or end date; we don't have any way of forcing them to tell us a specific day or month."

Arkin says that the Oregon Forest Practices Act, which governs private forests, does not provide a process for public or agency review of pesticide application plans, allows ap-

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— BARB BURNS

plication records to remain private, and permits the private records to be destroyed after three years. After the recent public ruling from the state attorney general on the Curry County case, it appears those records might now be public records.

Rickard says she's from a third-generation logging family and worked on logging shows herself. She's been a choker setter and dug fire trail. She says, "I don't want to vilify the timber companies because it's very important to our economy." But it's only private lands that get aerially sprayed — the federal government hasn't done it in 20 years, she points out, calling aerial sprays the "lazy man's way" of doing it.

When answers were not forthcoming from government agencies, the frustrated rural residents turned to Eugene-based Beyond Toxics. The groups teamed up and began filing petitions — to the Centers for Disease Control, to the EPA — and getting media attention and even the support of members of Congress. Beyond Toxics filed public records requests and appealed them to the state attorney general, and still the months dragged on. And while the people of Cedar Valley now know what hit them, they also worry about how to keep it from happening again and what the long-term effects are of what is essentially a chemical soup.

This is chemical trespass, Burns says. "No one has the right to come over my property and me, and drop poison on me or anybody else."

Burns says he doesn't think this incident would have happened in other states where the mix of chemicals would have been monitored and there are larger buffers to protect homes and waterways. While Oregon's 60-foot buffers for aerial sprays are supposed to protect fishbearing streams, there are no buffers for people. Washington protects its waterways better — it requires buffers of 100 to 150 feet for fishbearing streams as well as buffers along non-fishbearing or intermittent streams.

"We are so far behind other states" when it comes to laws on aerial sprays, Burns says. "We're driving a Model T, and they are driving Ferraris."

Investigations

Coba of ODA says the Curry County investigation is the toughest she has encountered. For Arkin, the investigation is remarkable in that it actually found any wrongdoing.

However, ODA is not saying the helicopter spray led to the illnesses. Coba says, "We have no ability to say how sick they were or what caused their illness."

Arkin says, "Beyond Toxics has been organizing rural residents for six or seven years now and taking their calls when they have been sprayed. In almost all cases except for one, ODA has come back with a negative finding after people have experienced property loss and illness."

One case in point is Triangle Lake on Highway 36 west of Eugene. Rural dwellers there have complained for years of illnesses from toxic sprays on nearby private timberlands. In 2010, the residents asked scientist Dana Barr, an expert in environmental toxicant exposures who spent more than 20 years at the Centers for Disease Control, to test their urine. She found that all of the residents had measurable levels of 2,4-D and metabolites of the herbicide atrazine in their urine.

Atrazine is an endocrine disruptor, according to Rosemarie Fiorillo, an attorney with a background in studying pesticides such as atrazine. She worked on a case in Illinois where her firm represented a community water system, which had to filter atrazine out of the drinking water, in state and federal court. They sued Syngenta, which manufactures atrazine, for the costs of filtering the water and settled for \$105 million.

Atrazine has also been shown in lab tests by scientist Tryone Hays to "feminize" frogs — basically turn them into males with uteruses. Atrazine and other endocrine disruptors are also believed to be linked to hypospadias, a condition in which the urethra is not located at the tip of the penis. Fiorillo says she is working on another case in alleging that atrazine has caused hyposadias in a boy from Illinois.

One of the chemicals that was found in the Curry County case, 2,4-D, is possibly also linked to endocrine disruption. According to a 2,4-D technical factsheet from the National Pesticide Information Center, "Because 2,4-D has demonstrated toxic effects on the thyroid and gonads following exposure, there is concern over potential endocrine-disrupting effects."

Fiorillo says that in order to pursue a case, "the first thing one would have to establish is exposure." In the case of Triangle Lake, the urinary metabolite testing proves exposure. Barr's testing results have led to a state and federal investigation at Triangle Lake. The Triangle Lake/Highway 36 Exposure Investigation, as it is called, is slowgoing. Triangle Lake resident Eron King says, "Not much has happened." She says she was told the Oregon Health Authority is putting out the final public health assessment very soon and "to me that marks the end of the investigation." She asks, "What came of it? A whole lot of hot air, as people just talked about it, with little help to remedy the situation."

One result of the investigation is that EPA will be putting up air samplers in the area to test for pesticide drift.

Burns, who is an assistant fire chief in Cedar Valley and was sickened by the spray, says the issue is not with the timber industry, noting that "we need that economy in our state." The problem, he says, is the way they do the spraying.

"This happens all over the state. Nine other counties including ours have had problems with this." Burns says that there needs to be more regulations and monitoring, and it needs to be done properly.

"Our civil and constitutional rights have been violated."

According to ODA, there are monetary penalties on the state and federal levels for violations in pesticide sprays that the applicator may face. Despite the current findings, the law allows the applicator to keep spraying. ■

Lane County Area Spray Schedule

- Swanson Brothers Lumber Company Inc., 935-2231, plans to hire Nick's Timber Services, Inc., (503) 876-8220, to spray 38 acres near the **headwaters of the Long Tom River** with Clopyralid, Glyphosate, Hexazinone, anti-foam and dye. See ODF notice 2014-781-00333, call Stewardship Forester Robin L. Bie-secker at 935-2283 with questions.
- M Three Timber Company, LLC, 767-3785, plans to spot spray 65 acres near Silk Creek and tributaries of **Silk, Muslin and Bennett creeks** with Westar, Velpar L and Transline. See ODF notice 2014-781-00326, call Stewardship Forester Brian Peterson at 935-2283 with questions.

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