



Washington State Department of Health  
 Pesticide Illness Surveillance  
 Agricultural Drift Event Summaries (2017)

Event	Event Narrative	#	Pesticide Product(s) (EPA Reg. Number)	Active Ingredient(s)
170033	<p>Five female farmworkers ages 33 to 45 were placing pheromone tablets at an apple orchard. They started to work approximately at 7:00AM and were working adjacent of another apple orchard owned by the same company. The neighboring orchard was being sprayed by air-blast with lime sulfur solution. The wind blew toward the workers. Workers did not see the applicators, however, they could smell the distinct rotten egg smell of sulfur. They were moved to another block. There, lime sulfur solution was being applied just across a narrow road on the adjacent block. In this location, the workers indicated seeing the air-blasters at distances of 20, 50, and 100 feet away from them. Both the workers and the applicators were moving toward each other when the application stopped after the workers developed gastrointestinal, neurological and some upper respiratory irritation. According to some workers, the crew leader tried to contact the foreman but he was not available. This incident was referred to L&amp;I for compliance inspection.</p>	5	<p>REX LIME SULFUR SOLUTION (071096-00006)</p>	<p>Calcium polysulfide</p>
170038	<p>A 24-year-old male farm worker was placing pheromone strips on an apple orchard. He noticed an air-blast applicator spraying the neighboring orchard and his crew decided to move away from the area. He reported smelling the spray for approximately 10 minutes before he moved. While moving out, the worker was exposed to drift of a tank mix containing chlorpyrifos and mineral oil being applied about 230 feet away. He developed neurological symptoms and was asked to change clothes and decontaminate. The Washington Department of Agriculture collected samples in the area the worker was located and analyzed also his clothing to determine if his clothes contained residues of the sprays applied. The laboratory tests of the clothing confirmed the presence of chlorpyrifos and mineral oil. The orchard is located between two weather stations and readings from one of the stations supported the above referenced drift event scenario.</p>	1	<p>OMNI SUPREME SPRAY (005905-00368)          VULCAN (066222-00233)</p>	<p>Chlorpyrifos          Mineral oil          Aliphatic petroleum solvent</p>
170043	<p>Two female farmworkers ages 32 and 38 were painting posts when tractors from the same orchard sprayed them with lime sulfur. There were tractors burning material nearby and it was very noisy. The foreman for the sprayers didn't notify</p>	2	<p>REX LIME SULPHUR SOLUTION (071096-00006)</p>	<p>Calcium polysulfide</p>

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them. Both workers developed headaches. They developed eye and respiratory irritation. Both sought medical attention.

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170050	A 21-year-old female irrigation district worker was driving through a ditch when she smelled and tasted drift from an air blast application to an apple orchard on the other side of the road. She developed respiratory pain and was taken to the clinic. Some samples collected by WSDA from the ditch are positive for the pesticides applied to the orchard.	1	OMNI SUPREME SPRAY INSECTICIDE MITICIDE (005905-00368) ESTEEM 35 WP INSECT GROWTH REGULATOR (059639-00115) VULCAN (066222-00233)	Chlorpyrifos Mineral oil Aliphatic petroleum solvent Pyriproxyfen
170059	A family of six, consisting of a 39-year-old female and her 48-year-old husband, two sons ages nine and 4, and two daughters ages one and seven reported ocular, respiratory and gastrointestinal symptoms after multiple applications of a pesticide mixture were sprayed on an apple orchard adjacent to their property. The applications occurred over a 2-day period for approximately five and seven hours each day. The mixture consisted of two insecticides, two fungicides, a fertilizer, and an adjuvant. An air-blast sprayer was used to apply the pesticides. WSDA investigated and collected foliage and swab samples from the property to determine if pesticides drifted onto the property. Residues of three of the product's active ingredients were detected on the family's property. WSDA also collected four swab samples from the windows of the home, which is located 220 feet from where the application occurred. Three of the four swab samples showed no detections of the pesticides applied; one was positive for mineral oil (one of the pesticides applied). One family member detected odors at the time of application. This family member developed symptoms consistent with the toxicity of the pesticides applied.	1	GOLDEN-DEW (002935-00407) PN ALL SEASON SPRAY OIL (002935-00546) GOVERN 4E INSECTICIDE (062719-00220) TOPGUARD FUNGICIDE (067760-00075)	Chlorpyrifos Mineral oil Aliphatic petroleum solvent Sulfur Flutriafol
170061	A 37-year-old male cherry orchard worker was placing nets to protect cherry trees when he noticed an air-blast application in the same block he was working. The applicator was not supposed to be spraying the same block he was working. He signaled the applicator to stop spraying, but the applicator continue spraying as the spray hit his face. He also reposted breathing the mist. The applicator was spraying a tank mix of two fungicides and a number of plant nutrients. He developed respiratory and neurological symptoms 30 minutes after he was hit with the spray. He sought medical treatment at a clinic the next day. He did not decontaminate after the exposure. It was determined he experienced cold symptoms at the time he sought medical treatment.	1	SONATA ASO (000264-01153) KUMULUS DF (051036-00352)	Bacillus pumilus strain QST Sulfur
170062	A 50-year-old male orchard irrigator got sprayed in the face by an unlicensed applicator as he drove through an apple orchard on his 4-wheeler. He developed dermal irritation on his face and went to the ED. He reported no other health effects.	1	REX LIME SULFUR SOLUTION (071096-00006)	Calcium polysulfide Calcium polysulfide
170065	Six farmworkers were putting hormones on trees in an apple orchard when an air blast sprayer appeared operated by an employee from the same orchard sprayed	2	PRASITEX (072662-00001) JET- AG (081803-00006)	Hydrogen peroxide Borax

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	them. Two females, ages 33 and 44 sought medical attention after they developed headache, respiratory distress and skin irritation.			Peroxyacetic acid Phosphorous acid
170066	A 55-year-old male farm worker developed ocular symptoms after he was drifted with lime sulfur. He was asked to work in another section of the orchard; and as he came out of a vehicle he was hit with the mist from an air-blast application. The applicator was spraying just across a highway separating both orchards. The distance from the applicator to the worker was approximately 300 feet. The worker decontaminated his face and eyes with water; however two hours later developed itching and pain. He sought medical treatment the next day and was discharged after treatment. This incident was referred to the Washington Department of Agriculture for investigation and collected pesticide application records for both orchards.	1	REX LIME SULFUR SOLUTION (071096-00006)	Calcium polysulfide
170068	A 41-year-old female farmworker was thinning on a ladder in an apple orchard when she noticed an odor. It was windy. She developed dizziness, gastrointestinal symptoms and difficulty breathing. Her coworkers spoke of getting headaches and noted that pesticide drifted from an air blast application to the neighboring apple orchard on tribal land. She was taken to the ED and missed two days of work. The drift incident was referred to EPA for investigation.	1	REX LIME SULFUR SOLUTION (071096-00006)	Calcium polysulfide Calcium polysulfide
170070	A 34-year-old woman was exposed to pesticide while she worked in an organic orchard removing the buds from apple trees. The air blast spray application happened in the early morning to an adjacent orchard an estimated distance of from 300 to 400 feet away from where she was working. The rest of her crew were positioned several rows away from her and did not report exposures. She heard the sound of the air blast sprayer approaching her but did not see it. Although she smelled a "foul odor" and began to experience stomach pain that she associated with exposure to the spray, she did not feel that she could leave her location since that was the place where she had been told to work. She experienced gastrointestinal and neurological symptoms. She informed her sister and her supervisor. Her supervisor instructed her sister to accompany her to obtain medical care in town which they did. She was treated at a clinic and released. Symptoms lasted about two days.	1	REX LIME SULFUR SOLUTION (071096-00006)	Calcium polysulfide
170072	A 39-year-old female with no prior history of allergies, developed hives and swelling around her mouth as she worked in an apple orchard hanging pheromones in the trees. A tractor also sprayed weeds in the same block as she worked and she was able to smell it. She went to the ED.	1	GRAMOXONE INTEON (000100-01217) NOMATE CM SPIRAL (036638-00030) ISOMATE CM FLEX (053575-00032) LESCO OCTANE 2% SC HERBICIDE (071711-00025)	Lauryl alcohol Myristyl alcohol Pyraflufen-ethyl Paraquat dichloride (E,E)-8,10-Dodecadien-1-ol
170079	Two female farmworkers, both 31-years of age, were thinning apples when they noted a strong odor from an air blast application of a fungicide/insecticide/matricide approximately 100 feet away. The applicator worked for the same farm as the women thinning apples. Both reported	2	REX LIME SULFUR SOLUTION (071096-00006)	Calcium polysulfide

	respiratory irritation, headache and nausea. One of the women sought medical attention and missed more than five days from work.		
170086	A 39-year-old female farmworker was working in an orchard and noted a rotten egg smell when persons sprayed in the orchard across the road and upwind from where she worked. She developed headache and gastrointestinal symptoms and went to the ED. WSDA investigation revealed multiple air blast applications for bloom thinning at different farms over a 2-day period. At WSDA's site visit, the worker's supervisor confirmed from which orchard the pesticide drifted. Winds blew at 5mph from the direction of the apple orchard that was sprayed. Samples were not collected for the incident that was 2-weeks old at the time of investigation.	1	REX LIME SULFUR SOLUTION (071096-00006) Calcium polysulfide
170092	A 35-year-old female and her father were on the front deck of her father's house during a ground application of two fungicides to blueberries on an adjacent farm. She felt and smelled the spray, then developed a headache, dizziness, and upper respiratory symptoms that lasted about five hours. Her father was asymptomatic. Neither sought medical attention. She reports that helicopter and ground spraying on the adjacent blueberry field occurs up to two times a week during the growing season. The fungicides have a 12-hour and a 72-hour REI. WSDA investigated, although a site visit was not conducted, and no pesticide residue samples were collected from the resident's property. WSDA found no violations, but talked with the Farm's Agronomist about coordinating with the neighbor so they can be notified before making an application next to the property. The farm agreed to monitor applications made to the fields next to the property, and to communicate with the neighbor, prior to making pesticide applications.	1	PRISTINE FUNGICIDE (007969-00199) CAPTAN 80 WDG (066222-00058) Captan Pyraclostrobin boscalid
170098	A farm worker and part-time pesticide applicator was told by his boss to supervise a crew of pesticide applicators one day at work in the orchards. After discussing the day's job with a crew member, he got into his truck to drive to another location at the ranch. While in his truck he experienced drift blow-back from one of the ongoing air blast applications onto his left arm through the open window of his truck. He wore no PPE as he was not applying- only supervising others on that day. He experienced localized dermal symptoms and headache within 20 minutes of the exposure, and showered thoroughly upon returning home that day. He did not seek medical care although he contacted WAPC for health information about the product. His dermal symptoms lasted three days and headache for 1. He did not miss work. He told DOH investigator that neither he nor crew members who apply pesticides at that ranch have a pesticide handler's license nor does he recall receiving any training regarding safe use of pesticides. He did not wish to report his employers name or provide names of other workers who may have been exposed to pesticides at that time.	1	IMIDACLOPRID 4FL AG (042750-00140) Imidacloprid

170099	A 39-year-old female farmworker became ill when an applicator sprayed a growth regulator to apples three rows from where she worked tying branches. She noted a strong odor and developed respiratory and gastrointestinal health effects. She went to the clinic and was referred to the ER. She missed 2 days of work. The incident was referred for investigation.	1	APOGEE PLANT GROWTH REGULATOR (EPA #7969-188)	PROHEXADIONE CALCIUM
170105	While delivering mail on his route, a 69-year-old male postal carrier developed dermal and ocular symptoms shortly after he was exposed during an aerial application of two fungicides to a nearby wheat field. He noticed an odor and a bad taste in his mouth, and some spray landed on the windshield of the vehicle he was driving at the time. He sought medical attention the same day. WSDA investigated the same day, and collected residue samples from his vehicle and shirt. Residue from the pesticides applied by the aerial applicator were detected on all of the vehicle samples, but not on the shirt sample.	1	PRIAXOR XEMIIUM BRAND FUNGICIDE (007969-00311) WILLOWOOD PROPICON 3.6 EC FUNGICIDE (087290-00007)	Pyraclostrobin Propiconazole Fluxapyroxad
170149	A 22-year-old male and a 58-year-old male were installing posts in an apple orchard before seven am when four air blast sprayers appeared, driven by unlicensed applicators spraying insecticide to the neighboring orchard. Both men felt the spray. The 22-year-old, who was closest to the sprayers, began vomiting and sought medical attention. The 58-year-old male developed respiratory symptoms and headache. He sought medical care and changed clothes at the end of the work day. When a co-worker of the two men asked the unlicensed pesticide applicators what was applied, they didn't provide spray information, but they did indicate that it was poisonous. WSDA collected samples from where the two men worked, which tested positive for the insecticide applied.	2	WARRIOR II WITH ZEON TECHNOLOGY (000100-01295)	lambda-Cyhalothrin
170191	A 29-year-old male working in a dairy was on top of his feed truck loading it with nutrients for the dairy cattle when suddenly he was hit with a mist from an insecticide application. The applicator sprayed a formulation of a pyrethroid insecticide mixed with an aromatic hydrocarbon to suppress fly infestation in the dairy. The worker believed the applicator did not notice him when he passed just 32 feet away from the feed truck where he was standing. He was hit on the face and neck with the spray mist. He washed his face immediately and continue working. Thirty minutes later he started feeling dermal, neurological and gastrointestinal symptoms. He sought medical treatment the same day and was discharged after the examination.	1	GRENADE ER INSECTICIDE (000100-01066)	lambda-Cyhalothrin
170192	A sixty five-year-old male poultry farmer worked with pheasants in a net covered aviary. He noticed an aerial applicator spraying pasture land field adjacent to his property. The field is approximately 50 feet away from his property line and 100 feet away from the aviary. He did not notice any smells while he was working inside the pheasant enclosure. However, when he came out of the aviary, he took two whiffs of what he detected as a 2, 4-D herbicide. Later, WSDA determined that	1	DUPONT CIMARRON MAX HERBICIDE (000352-00615)	Dicamba, dimethylamine salt Dimethylamine 2,4-dichlorophenoxyacetate Metsulfuron-methyl Diethylene glycol

the aerial applicator sprayed an herbicide containing metsulfuron methyl, Dimethylamine salt of dicamba, Dimethylamine salt of 2, 4-D and a spray adjuvant containing diethylene glycol. In his initial complaint to WSDA he reported the incident as a drift to his plants, ornamentals and pheasant's apiary without indicating he was exposed to the tank mix himself. Later, during the course of the investigation, reported neurological and ocular symptoms after smelling and feeling the herbicide mist on his face. He took a shower after he finished working in the aviary. He was not able to correctly identify the specific time of exposure. He reported neurological and ocular symptoms. WSDA detected residues of the herbicide applied in the aviary where he worked. There was also some visual damage of broadleaf weeds in the yard and pheasant enclosure.

170197	A 37-year-old female farm worker arrived at a cherry orchard to pick cherries. At the same time an applicator using an air-blast sprayer applied a tank mix containing and insecticide with a fungicide mixed in the tank. She came out of her vehicle and was hit with the mist on her face and eyes. She did not decontaminate after the exposure. Approximately 10 minutes later she developed ocular and skin symptoms. Also, she reported some gastrointestinal and neurological symptoms. This incident was referred by DOH to L&I for investigation.	1 ENTRUST SC (062719-00621) Trionic 4 SC (070506-03028)	Spinosad Triflumizole
170211	While performing mechanical hedging in a wine grape vineyard block, a 47-year-old male tractor driver received spray from another employee who was spraying fungicides in another vineyard block a few hundred feet away. It was windy at the time. He noticed the spraying, and smelled a chemical odor. He was not wearing any personal protective equipment, other than a long-sleeved shirt, long pants, and boots. Immediately following the exposure, he rinsed his face and eyes, but developed dermal, respiratory, gastrointestinal, and ocular symptoms that lasted a couple of hours. He went to the ED the same day. L&I investigated, and cited the farm for numerous health & safety violations.	1 VIVANDO FUNGICIDE (007969-00284) ZEROTOL 2.O (070299-00012)	P:000325 -METRAFENONE P:000595 -Hydrogen peroxide P:063201 -Peroxyacetic acid
170219	A 36-year-old female living in a home located approximately 30 feet away from a potato field reported upper respiratory, neurological and ocular symptoms after breathing vapors from an application of an herbicide and a surfactant to the field. The application was conducted with a ground-sprayer and she indicated being approximately 20 feet away from the spray equipment. She was exposed while she was on her yard picking her children's toys to protect them from potential drift. She was outside for 10 minutes and during that time she smelled and tasted the spray. The incident was referred to WSDA for investigation. They collected a number of foliage and swab samples to determine if the herbicide drifted into the property. Samples were also collected to document previous drift events as the WSDA investigator observed visual evidence of drift from previous applications. There were no positive samples indicating drift from the herbicide application. Samples were positive for residues of Mefenoxam a fungicide applied on the potato field a month earlier. Even though the WSDA samples were negative for the herbicide, the symptoms reported by the home owner might have been the	1 NUFARM DIQUAT SPC 2L (000228-00675)	Diquat dibromide Alcohols, C11-15-secondary, ethoxylated

	result if inhalation of vapors from the ingredients in the surfactant mixed with the herbicide. The surfactant contained ethoxylated phenols and alcohols capable of producing the symptoms she reported.		
170239	A 43-year-old male farm worker driving a forklift on a road adjacent to an apple orchard developed ocular symptoms after an aerial applicator sprayed a plant growth regulator with an adjuvant containing 2-butoxyethanol to an apple orchard. The worker felt the mist on his eyes and rinsed his eyes and face with water right after the exposure. He reported the incident to his supervisor and was examined at an ED two hours later. He was discharged after the examination and treatment. The incident was referred to WSDA for investigation. WSDA issued an Advisory Letter to the aerial applicator as to be cautious during applications adjacent to roadways or thoroughfares.	1	REFINE 24.2L (062097-00038)  Potassium 1-naphthaleneacetate 2-Butoxyethanol
170270	A 22-year-old female secretary for a farm went outside to get the mail. An employee with the same farm was spraying fungicide to the orchards. She tasted the pesticide, felt it on her skin and ran back inside. She developed respiratory and dermal irritation and gastrointestinal health effects. She went to the ED.	1	NU-COP 50 DF (045002-00004)  Copper hydroxide
170278	A 51-year-old male apple orchard owner was digging a water trench at his farm when he reported that neighbor spraying a fungicide containing copper hydroxide on an air-blaster, drifted him. He reported seeing the mist on his eyeglasses and developed ocular symptoms. He rinsed his eyes for 10 minutes and the next day decided to visit an optometrist. He was seen twice at the eye clinic. WSDA investigated and could not verify that the alleged drift was possible due to the extensive time between the application and the complaint. Still, WSDA issued an advisory letter to the neighboring orchard indicating that the closest weather station recorded wind directions out of the east or moving in the direction of the complainant the morning of the event.	1	NU-COP 50 DF (045002-00004)  Copper hydroxide