Pot and Pesticides: A Bustling Illegal Trade

Unmarked vials, confused cultivators, self-appointed regulators - the messy side of marijuana horticulture

By Kate McLean on May 26, 2010 - 12:17 a.m. PDT

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Vials procured at Bay Area grow shops containing pesticides identified as Avid and Floramite.

Pesticides not meant for use on consumable crops are available in “grow” shops throughout the Bay Area – a bustling market in which toxic substances are sold over the counter in unmarked vials.

A Bay Citizen reporter was able to purchase substances identified by vendors as the pesticides Avid and Floramite at hydroponic gardening centers in San Francisco and Berkeley. The reporter was offered a quart container of Avid at another Berkeley store for $400.

Three other grow shops said they did not carry the pesticides; two noted it would be illegal to do so.

State and federal laws dictate that pesticides should only be used on approved crops – which do not include pot – and that the pesticides must be sold in packaging that is labeled according to standards prescribed by the Environmental Protection Agency. It is illegal to sell pesticides without this label, which explains how to safely apply the substances.

The insecticides are considered powerful tools for killing pests that can destroy indoor marijuana gardens and ruin the lucrative crop, worth as much as $4,000 per pound on the street. Growers said use is common when dealing with serious infestation problems.

"When people are faced with a high dollar loss or taking a risk, they take the risk," said Sean Taylor, the owner of 3rd St. Hydroponics in Oakland, who says his shop refuses to sell the toxic substances. "I've had growers come in and I could smell it."
In interviews, growers and merchants describe an unregulated market for pest-control and growth-enhancement products, in which a kind of Wild West mentality prevails. Some novices confronting pest problems apply pesticides with a heavy hand, they said; posts in online cannabis forums include questions from growers confused about how much Avid to use.

"There's a lack of guidance on how to properly use pesticides," said one former grower who now works as a pest control specialist. "There's just a lot of guessing going on and a lot of misuse."

Floramite in particular is not designed for food crops, according to toxicologists, so it has not undergone studies to detect carcinogenic properties. Such studies are standard for pesticides used on edible plants. Also, because the pesticides are not intended for marijuana, there have been no studies about how pesticide residues might react if smoked.

"I don't have any data to tell me that it's safe or OK to use any insecticide or herbicide on cannabis," said San Francisco Agricultural Commissioner Miguel Monroy, who is charged with enforcing pesticide laws in the county. "There isn't anything that's registered for use on cannabis."

Marijuana is the state's biggest cash crop, worth as much as $14 billion annually by some estimates. But the drug is regarded as a Schedule I controlled substance by the federal government and is not regulated as a commodity. This means that pesticide companies and regulatory agencies do not supervise how it is grown or monitor pesticides that may be used for cultivation.

“We don’t regulate marijuana, we don’t take samples of it, we don’t test it and we don’t know anything about it,” said Lea Brooks, spokesperson for the California Department of Pesticide Regulation.

In recent months, concerns over the use of pesticides and other potentially dangerous ingredients in the Bay Area’s marijuana supply have created an expanding network of private, self-appointed regulators who do everything from certifying that organic marijuana is “clean green” to testing for contaminants. The new businesses have effectively assumed the government's regulatory role.

There are no quality-screening requirements for the 29 licensed marijuana dispensaries in San Francisco, Oakland and Berkeley, where pot in various forms is available with an easily obtained prescription.

The California Department of Public Health reports that there have been no complaints about illness or problems related to contaminated marijuana. No cases have been reported to San Francisco's health department either.

The Bay Citizen purchased glass vials of Avid and Floramite labeled "3 ml/gal" with permanent marker for $40 each at Berkeley's Secret Garden. A reporter was given a free glass vial that was identified as Floramite and labeled "FloraKill miticide (bifenazate)" at Grow Your Own in San Francisco.
"This is the stuff," said the man behind the counter at Grow Your Own as he fetched a glass vial of white material from a small refrigerator behind the counter. He warned that it was strong, and advised wearing gloves.

"The white one's Floramite," said the woman at Berkeley's Secret Garden as she handed the vials over the counter in a brown paper bag. She instructed that about 10 drops of the substance should be diluted in a gallon of water.

"We don't really do a lot related to the growth of illegal substances," said Steven Moore, one of the owners of Berkeley's Secret Garden, who denied that his shop sells products for marijuana cultivation or gets many requests for Avid or Floramite. He said it was legal to sell Floramite over the counter, but called the Avid sale "a mistake."

"That's something we use around the store," he said.

The owner of Grow Your Own, who was identified only as Brian, said of the unlabeled vial of Floramite: "The quarts are labeled and then we just break 'em down into smaller bottles. It's a benefit for the customers so that they don't have to buy a $500 pint of pesticide."

A spokesperson for the California Department of Pesticide Regulation said it is illegal to sell unlabeled pesticides or use them on pot, but was unable to confirm or deny the legality of selling Avid or Floramite over the counter.

"You're talking about products that are being sold without labels," said Veda Federighi, the department's assistant director of external affairs. "Somebody can put anything in it."

Avid and Floramite have a low toxicity to mammals, and have been legally used in Bay Area landscaping. But neither government regulators nor chemical companies have never evaluated these pesticides – or any others – for use on pot plants.
"The toxic risk is pretty low," said Ron Tjeerdema, chair of the department of environmental toxicology at UC Davis. "But you're dealing with people that are buying and using it in an unregulated fashion."

The California Department of Pesticide Regulation and the San Francisco Agricultural Commissioner, who are tasked with regulating the sale of pesticides, requested that The Bay Citizen turn over the names of the grow shops for an investigation. Neither had ever investigated the issue of pesticides in the cannabis industry.

It is unclear whether pesticide-tainted pot has made its way into Bay Area medical marijuana dispensaries. At least six dispensaries are starting to voluntarily use some form of safety testing – mostly for molds or potency – to screen marijuana before it goes out the door. To obtain enough marijuana to meet demand, the dispensaries often work with multiple suppliers, who by law must be members.

Many Bay Area pot dispensaries evaluate marijuana by looking at it, feeling it and smelling it, a process they call "organoleptics."

"They really know what they're doing," said Larry Kessler, the San Francisco health inspector who checks the paperwork at the city's 22 dispensaries twice a year. "These people know a lot more about the quality than I could ever figure out, so at this point, no, we don't go there at all."

In the East Bay, there are two marijuana labs, Steep Hill Medical Collective and Collective Wellness, that will soon begin testing for pesticides, but because there are no established screening procedures, they are creating their testing methods as they go. Steep Hill is working on a method that screens specifically for chemicals such as Avid and Floramite; Collective Wellness is working on another approach, and a third lab sponsored by a trade group called the Medical Cannabis Safety Council is in development.

"Nobody really has these tests for cannabis," said Debby Goldsberry, director of the Medical Cannabis Safety Council. "We have to start from scratch."

The testing labs are new players in an expanding marijuana industry that now includes everything from insurance companies that cover dispensaries for potential liability to lobbyists who push marijuana legislation such as the November ballot measure.

“You don’t go into the grocery store and buy white cans of fluid not knowing what’s in them,” said Addison DeMoura, co-founder of Steep Hill, which already tests for mold and potency. “People just want cannabis that’s tested.”

The issue of pesticides and pot has become a concern throughout the marijuana industry. Last year, the Los Angeles Police Department bought pot from one L.A. store called Hemp Factory V and found residues of a pesticide called bifenthrin, a chemical that is moderately toxic to mammals when ingested. An L.A. Superior Court judge placed an injunction on the pot shop because it violated food and drug safety law, marking the first time such laws have been applied
to marijuana. The L.A. City Council went on to pass an ordinance that included a requirement for pot shops to lab test the drug for pesticides.

Advocates from the medical cannabis industry said this was an isolated case. They said most dispensaries provide a safe product.

“It’s just really unfortunate if the entire industry is judged by the worst example that they can dig up from under a rock,” said Dale Clare, an advocate of legalization who is also a member of the Medical Cannabis Safety Council.

State agriculture and public health regulators do not keep data about pesticides used on marijuana. Narcotics agencies do not track the chemical containers they find when they raid marijuana grow operations, and law enforcement agencies seldom test confiscated pot for contaminants.

But authorities in Humboldt and Mendocino Counties, where some of the marijuana sold in the Bay Area originates, report finding an array of chemicals and pesticides at outdoor grows.

Mendocino Sheriff Thomas Allman, whose employees eradicated 541,000 plants last year, said he routinely sees 7-pound plants that he calls “marijuana on steroids.”

“I just don’t believe a lot of end users at these dispensaries in the Bay Area have any idea what went in to this plant to get it to be as big as it was,” said Allman.

Allman, who supports medical marijuana, has been to many pristine pot gardens where growers used no pesticides or herbicides. He said he would even give pot to a sick family member if a doctor recommended it.

"But you can bet your bottom dollar that there's a lot of people here that I would never talk to," Allman said.