

## **Pesticides and Pot: What Marijuana Users Should Know**

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The passage of I-502 in 2012 means that marijuana is now a legal crop in Washington state. Growers of most of the fruit and vegetables we eat routinely use pesticides and other chemicals to reduce or eliminate crop destruction. Because marijuana is considered illegal by the federal government, the crop stands outside the federal pesticide evaluation and oversight system. The Washington State Liquor and Cannabis Board (LCB) has tried to address this gap by providing growers with a [list of pesticides](#) that may be used by marijuana growers, along with an explanation of the [criteria](#) used to select the pesticides. These pesticides were selected because their use on marijuana plants would not be in direct conflict with federal law (they are allowed on other food products) and they are considered to pose minimal risk to health when used as directed. Marijuana retailers are required to document all pesticides used on marijuana products that they sell and provide customers and regulators the information on pesticides used upon request.

The potential for pesticides to be present in marijuana is not new and was a concern before the legalization and regulation of medicinal and recreational marijuana products. Pesticides can pose a risk not only to marijuana users but also to workers who use the products and to the environment. We don't know that the problem is worse at this time than before regulation, and given the fact that there are now requirements for growers regarding acceptable pesticide use in marijuana sold by regulated stores (and soon to include "medicinal marijuana" sold at regulated stores) the risk may be lower at this time than in the past.

### **Concerns about unapproved pesticide use**

But in Colorado and elsewhere, pesticides that were not approved for use on marijuana have been [reported in product](#) from recreational stores. Could this happen in Washington? The Washington State Liquor and Cannabis Board (LCB) has licensing, regulatory and enforcement authority over recreational cannabis growers, processors and retailers. The LCB inspects each licensed facility prior to licensure to ensure growers have only the approved pesticides on hand. Washington law does not require pesticide testing currently, and at this time there is no routine testing or screening of marijuana products for pesticide residues. However, pesticide testing may be performed as part of a complaint investigation by the LCB. Consumers should know that pesticides have also been detected in [medical marijuana](#) and that currently, medical dispensaries in WA have no regulatory oversight by the LCB or any other government agency. However, beginning in July, 2016, sale of all marijuana products will be regulated by LCB and subject to "quality assurance" rules established by Washington Department of Health.

### **New testing guidelines are coming**

At Public Health – Seattle & King County, while we are not the regulatory authority over the marijuana industry, we recognize the need for testing of marijuana products for pesticides and other impurities by certified laboratories and under the authority and direction of the LCB.

Laboratory testing for pesticides in marijuana is complicated, costly and requires special expertise and equipment. Because no pesticides have Federal approval for use in marijuana, there are no levels of pesticides that are considered safe or acceptable in marijuana. This is especially true for pesticides on marijuana that is smoked, because very little is known about the human health effects of pesticide exposure when inhaled. For ingested pesticides, it may be possible to refer to existing Federal guidance for acceptable limits (tolerance) in other food crops for which the pesticide is approved. For pesticides not approved for use in Washington, no detectable amount is acceptable.

The Washington State Department of Health is currently formulating quality assurance standards for marijuana products, including guidelines for pesticide testing. These standards will initially apply to certain products sold in licensed stores and later will include all products. The State is also planning to certify laboratories to test marijuana using standard procedures, but none are currently certified. In addition, because there are so many pesticides, only a sample can be tested for at one time. On September 6, 2015, the Department of Health issued emergency rules regarding marijuana product compliance. Read the explanation and the new rule [here](#).

### **Know the possible risks**

Marijuana users should be aware of the health risks associated with marijuana use and the uncertainty regarding the health effects of pesticides that may be in marijuana products.

Reported adverse health effects of marijuana include the [neurologic, behavioral, cardiovascular and pulmonary \(lung\) systems](#). There have been no cases of human illness identified due to pesticides in marijuana however, the health effects of inhaled or ingested pesticides on marijuana and marijuana products are uncertain because of a lack of research in this area. Therefore, marijuana users should know that in addition to the known health risks of marijuana, it is possible that pesticide exposure through marijuana use could result in health problems. Because marijuana is often smoked or vaped and little is known about the effects of inhaled pesticides, it is important to learn more about the health effects of pesticide exposure both through inhalation (smoking) as well as through ingestion of marijuana products. Marijuana concentrates could contain higher levels of pesticides and impurities than leaf product.

### **What marijuana consumers and the public can do**

Avoid smoking or ingesting marijuana if you are concerned about pesticide exposure. All consumers should ask your marijuana retailer for documentation about the pesticides used on marijuana you purchase.

Provide input to Washington State about marijuana-related rule making by checking the LCB website (<http://www.liq.wa.gov/>) and the Washington Department of Health website (<http://www.doh.wa.gov/>).