

Enjoy Your Organic Produce, And Its Toxic Pesticides



By Josh Bloom — April 21, 2016



All of those nasty pesticides that are used by commercial

farms to kill insects sure are — to use the scientific term— icky. So, it's a good thing that shoppers have the option of getting all that ickiness out of their lives by buying organic produce instead, right?

This is what the Whole Foods-type operations want you to believe. And, it works! In the never ending quest to lead a fairy tale "natural life," people will wait on line to pay extra for a cucumber that will make your live another 50 years.

Too bad the whole thing is one big, fat lie.

The dirty little secret that the huge organic food industry doesn't want you to know is that "certified organic" produce is not grown with *no* pesticides, just different ones. One of them is called rotenone, which owes its place on the magic list of approved chemicals for organic farming because it just happens to be a naturally occurring chemical rather than a man-made one. As if that matters. Rotenone is also a pretty decent poison. Whole Foods does not want you to know that either, but I do.

So, let's take a look at some toxicological data on rotenone. Then perhaps you will decide that the \$10 cucumber isn't such a great deal after all. The following table will probably surprise you:

	Rotenone	Sumithrin (Phenothrin)
WHO Classification	Class II: Moderately hazardous (1)	Class U: Unlikely to pose an acute hazard in normal use (1)
Permitted in organic farming?	Yes	No
Carcinogenicity	Conflicting. Significant mammary tumor development in albino rats. Not in hamsters (2)	Not expected to be a carcinogen in humans (IARC, OSHA, Proposition 65, others)
HMIS Health Category	Class 2-Temporary or minor injury may occur	Class 1- Irritation or minor reversible injury possible.
NFPA Health Category	2 (Moderate)	1 (Slight)
Lethal dose in rats	800 mg oral, much less when inhaled (2) Positive in rat model of Parkinson's Disease (3)	Too high to be determined
Toxicity in Cats	ND	Significant
Toxicity in Dogs	Lethal dose: 300 mg per kg body weight (2)	Low: No effect at 300 mg/kg (4)
Lethal dose in Humans	2.8 grams (1) estimate	Too high to be determined
Toxicity in Fish	Highly toxic	Highly toxic

(1) http://www.who.int/ipcs/publications/pesticides_hazard_rev_3.pdf

(2) <http://www.pan-uk.org/pestnews/Actives/rotenone.htm>

(3) <http://pubs.acs.org/doi/abs/10.1021/tx049867r>

(4) <http://toxnet.nlm.nih.gov/cgi-bin/sis/search/a?dbs+hsdb:@term+@DOCNO+3922>

* **HMIS** [1] is the United States Hazardous Material Identification System; **NFPA** [2] is the National Fire Protection Association

Well, look at that! Rotenone, a pesticide that is permitted in organic farming, has either the same, or more toxicity than sumithrin, which is what is the active ingredient in [a can of Raid](#) [3]. Sort of makes you wonder how Ben and Jerry might react to this bit of information.

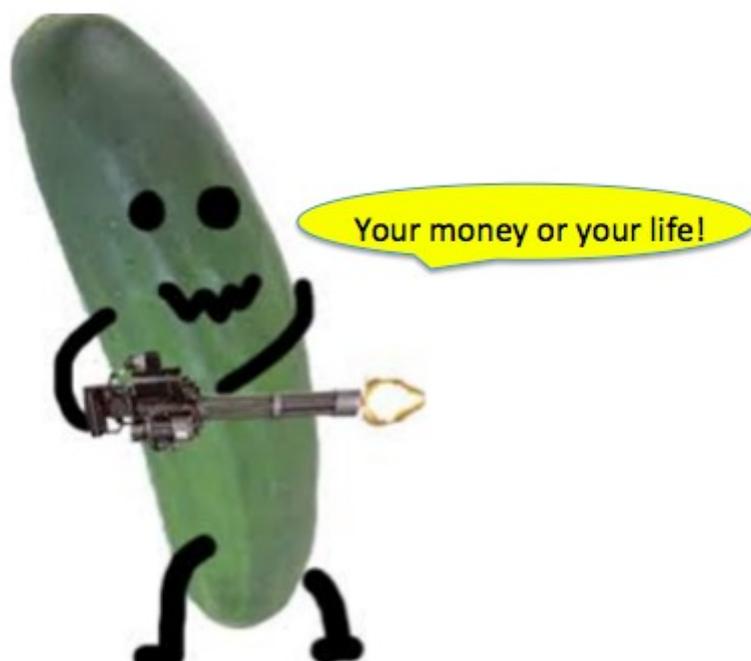


And, rotenone is hardly the only chemical that is permitted for use in organic farming. The USDA

keeps a [list](#) [4] of other chemicals that are permitted. Some examples are bleach, copper sulfate, boric acid, calcium polysulfide, sucrose octanoate esters, sulfurous acid, chlorhexidine, furosemide (aka Lasix — a diuretic drug), oxytocin (a hormone that induces labor) ...

So there you go. Traditional farmers use a bunch of chemicals (both natural and synthetic). Organic farmers also use a bunch of chemicals (both natural and synthetic). Are any of them going to harm you? Almost certainly not.

Except in the wallet. Be aware of those cucumbers.



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[1] http://www.chemsafetypro.com/Topics/USA/Hazardous_Materials_Identification_System_HMIS.html

[2] <http://www.nfpa.org/>

[3] <http://www.whatsinsidescjohnson.com/us/en/brands/raid/raid-flying-insect-killer>

[4] [http://www.ecfr.gov/cgi-bin/text-](http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=9874504b6f1025eb0e6b67cadf9d3b40&rgn=div6&view=text&node=7:3.1.1.9.32.7)

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