Your Yummy Morning Cup of Pesticide Won't Cause, or Prevent, COVID-19

By Josh Bloom — June 15, 2020

The pandemic isn't making the world any brighter. Insecticides are being sold online to treat or prevent COVID-19 -- and people are buying them. Speaking of pesticides, you probably had a healthy dose of one this morning and it's more toxic than DDT. Drink up!

Although it is difficult to come up with many benefits from an unprecedented deadly global pandemic, there is one, albeit mostly inconsequential nugget that we junk science chasers at ACSH should at least acknowledge. It seems to me that we're seeing less of the latest batch of dumb health fads – "plant-based" this or that, "100% natural something or other," "GMO-free [stuff that isn't made by GM anyhow]," or "pesticide-free" (more on that later).

Is it possible that people have figured out that eating a veggie burger won't stop the blood in their lungs from clotting? Or that switching from Diet Coke to water will keep your immune system from stampeding through their body's organs like the bulls of Pamplona? Is it possible that people have become smarter and are beginning to reject quackery and antiscientific conspiracy?

Of course not, because there will never be a moron shortage (for example, see my colleague Dr. Alex Berezow's rather unkind takedown of a theory blaming 5G for COVID).

There will never be a sleazebag shortage either. A few days ago the EPA ordered Amazon and eBay
Two unapproved pesticides that were being sold for COVID prevention; (left) Virus Shut Out claimed to be "a spatial disinfection card that would provide coronavirus protection to the wearer." Whatever that means. (Right) Xtreme-Bio, "STOP CORONAVIRUS DEAD IN ITS TRACKS !!!!"

But if you look on the company’s website you’ll find this disclaimer at the very bottom in a font so small that I don’t think it’s been invented yet.

Here it is in a non-Superman x-ray vision format:

“While our product effectively inactivates many viruses, including large envelope viruses, it has not yet been tested on COVID-19. No commercial products can yet be tested by any company for effectiveness against this new strain. That does not mean that they won’t be proved to be effective once companies are in a position to carry out the appropriate tests.”

And if a bunch of dopes believe that pesticides can prevent COVID, it should not be the least bit surprising that other dopes claim that an herbicide (one class of pesticides) causes COVID. Yes this “study,” one of the dumbest I have ever seen, was not only published but came out of MIT (!). See MIT Screwball Blames Glyphosate For COVID, And Everything Else [3].

You don’t need to be an organic chemist to know that pesticides neither cause nor prevent COVID. But summer is almost here so the topic of pesticide use will invariably come up. And do we really need to add West Nile, Eastern Equine Encephalitis (mortality 50%), chikungunya, or zika to the mix? I think not. So this is as good a time as any to talk about pesticides. Not only do they do far more good than harm, but you probably consumed about 95 milligrams of a really popular one this morning, and have presumably survived long enough to read this obnoxious article.
Yes, folks. Caffeine is a naturally occurring pesticide and a pretty good one. Here are some of the things that happen to bugs when they eat a little caffeine.

- Some insects die, others become paralyzed.
- Larval mosquitoes that are exposed to caffeine will lose their ability to swim up to the water’s surface upon maturing.
- Spiders fed caffeine-laced flies became unable to form symmetrical webs.

Source: Johnny B's Pest Control [4], Scientific American [5]

Well, since caffeine is natural it must be a pretty safe insecticide, right? Not necessary. Table 1 shows the relative toxicity of some common pesticides.

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Class</th>
<th>LD$_{50}$ (mg/kg)</th>
<th>Relative toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sumithrin (Anvil)</td>
<td>Pyrethroid</td>
<td>&gt;500</td>
<td>1.0</td>
</tr>
<tr>
<td>DDT</td>
<td>Organochloride</td>
<td>250</td>
<td>2.0</td>
</tr>
<tr>
<td>Carbaryl</td>
<td>Carbamate</td>
<td>230</td>
<td>2.2</td>
</tr>
<tr>
<td>Caffeine</td>
<td>Methylxanthine</td>
<td>192</td>
<td>2.6</td>
</tr>
<tr>
<td>Chlorpyrifos</td>
<td>Xanthine</td>
<td>82</td>
<td>6.1</td>
</tr>
</tbody>
</table>

Table 1. Relative toxicity of five pesticides in rats. Source: PubChem [6], National Library of Health

If you’re really worried about consuming a chemical that is a bit more toxic than DDT you can always try decaffeinated coffee.

But the joke’s on you! The process of decaffeination involves the use of methylene chloride, which was banned as a home-use paint stripped by the EPA in 2019. Methylene chloride is a great paint stripper but is rather toxic and also a suspected carcinogen.

Even though DDT is a bit less toxic than caffeine I think I’ll stick to my morning Joe. It won't keep mosquitos from biting me (1) or prevent (or cause) coronavirus from getting me, but at least I won't bite your head off if you try to talk to me in the morning.