

## Insect consumption may be the answer

?There was an old woman who swallowed a fly,  
I don't know why she swallowed a fly,  
Perhaps she'll die.

There was an old woman who swallowed a spider,  
That wriggled and jiggled and tickled inside her,  
She swallowed the spider to catch the fly,  
I don't know why she swallowed the fly,  
Perhaps she'll die.?

### Mark Pavilons

I?don't know if the world was ever d



signed to house and feed more than 7 or 8 billion souls.

There are those who are already ringing the alarm bells, saying we need to re-examine our food sources and agricultural production methods, to ensure long-term sustainability.

Even our local Holland Marsh ??the food basket of Ontario ??can't sustain us indefinitely.

Human beings have eaten all sorts of things over the millennia. We have no trouble eating two- and four-legged creatures. But when it comes to the six- and eight-legged varieties, watch us cringe. You're cringing right now, aren't you?

Yet insects may well be our saviour.

It's estimated that some 2 billion people eat insects around the world, primarily in Africa, Asia, and Latin America, where the practice has been around for more than a thousand-years, according to a new report by the Food and Agriculture Organization. Some say the estimate is even higher ??at 80% of the world population. The most popular menu items include beetles, caterpillars, bees, wasps and ants. Other forms of appetizers include dragonflies, cicadas, crickets and grasshoppers. I don't know about you, but I?prefer my grasshoppers nice and crispy!

But don't take my word for it. A cooked grasshopper contains upwards of 60 per cent protein, with just 6 per cent fat. Compare that to a burger with 18 per cent protein and 18 per cent fat. Dried crickets weigh in at 65 per cent protein. It's a no brainer!

In addition to being high in protein, many edible insect species are also high in essential fatty acids, particularly omega-3s. Aquatic insects tend to have higher levels of essential fatty acids, though all edible insects contain them to some extent. Many insects, such as crickets, grasshoppers, ants, and certain caterpillars, are exceedingly high in calcium. Try a side dish of soldier fly larvae!

B12 can only be found in animal sources. Crickets and cockroach nymphs are both good sources of B12.

Nutrient levels are so high in certain insects because we eat them whole, including their exoskeleton and internal organs. It's sort of like eating the shells of shrimp, crab, and lobster. If our livestock were somehow ground up whole, we'd get far more nutrition out of them.

There are so many reasons why we should be eating bugs, that we need to give our collective heads and legs a shake.

First, they're everywhere, by the billions. There are more than 1,900 edible insect species. That's more than enough to fill the menus

of every fast food restaurant on the planet!

Insects release fewer greenhouse gases than traditional livestock. Rearing traditional livestock accounts for 18% of greenhouse gas emissions, which trumps emissions by the transportation industry. Both industries emit far more greenhouse gases than mealworm, cricket, and locust producers! Insects also release much less ammonia and methane than pigs and cattle. Bet you didn't know that! Rearing insects uses less land and water than cattle-rearing. It's also a way to make use of organic waste. The Netherlands has invested \$1.3 million in finding ways to raise edible insects on food waste. Again, yummy!

Eating bugs makes economic sense. As global food prices rise, the cost of animal feed has weighed down farmers and driven up meat prices.

Insects require less energy to stay warm and are therefore more efficient at converting feed into protein. Crickets need 12 times less feed than cattle, four times less than sheep, and half as much as pigs and broiler chickens to produce the same amount of protein. The cost of gathering insects or producing them at scale is relatively low.

Experts say bugs are less likely to make us sick. Insects are taxonomically distant from humans, which makes them less likely to transmit diseases. Think SARS, H5N1 or mad cow. I kinda like the sound of 'mad cricket' though.

If this still bothers you, look on the bright side. You already consume insects and insect parts, unintentionally.

Have you heard of shellac, the substance that makes your apples shine? It comes from, wait for it, the resin secreted by the lac bug, on trees in the forests of India and Thailand. It's used to coat certain medications and it has replaced wax on fruit to make them nice and shiny. Modified, it's also used on candy coatings. Eat up!

If you come across crimson lake, natural red 4, or E120, you're eating the finely ground red beetle abdomen.

The health officials here and the FDA in the U.S., allow a certain amount of bug parts in our food. Yes, my dear friends, if you eat canned foods, rice, grains and chocolate, you're regularly digesting bug bits. This amounts to one to two pounds a year, according to one university study.

So, I say, dig in and let's eat!

The more we eat, the less we have crawling on our skin or in our hair, ruining our summer picnics! Bugs beware, the humans are coming!