

Green World™



Why go Natural for pest Control?

If you need to use pesticides, you might be confused as to which one you should choose. As you can tell, there is a lot of talk about “going green”, and whether you should use natural or synthetic pesticides.

Simply put - natural pesticides work better over the long run because pests are less likely to develop a tolerance to them. This means that over a long period of time, these pesticides will be more effective than ones pests have developed a resistance to.

In recent years, so-called natural, or “organic”, pesticides have been growing in popularity. This has caused a boom in the natural pesticide market.

What Are the Major Differences between Natural and Synthetic Pesticides?

Mainly, they are extracted and synthesized through different methods. If a product is natural, it is either extracted directly from the ground, plants, or animals. If a product is synthetic, that means that it is cooked up by artificial means in a laboratory. However, this doesn't necessarily make natural pesticides better than synthetic ones by any means.

How Harmful Are Synthetic Pesticides?

What you should know is that certain chemicals are more dangerous to both animals and humans than others are. It's very important to make sure you choose something that is safe, and this will depend upon the product and the chemicals used.

Synthetic Pesticides can be harmful to the environment and are not very conducive to a mission of going green.

Pests May Develop A Tolerance To Certain Chemicals Over Time. This means that the longer you use these particular pesticides, the less likely they are to work. It can also mean that certain species of pests can evolve to be completely resistant to certain chemicals

Contamination of soil and water resources is a major potential problem with synthetic pesticides. If you have a well for your water, you may want to reconsider your use of synthetic pesticides. You don't want to risk contaminating your drinking water, or poisoning yourself and others.

If you have pets in the area, they could potentially be harmed or killed by exposure to synthetic pesticides. Dogs and cats are difficult to keep out of things, and they also have more sensitive systems than human beings.

For example **pyrethrins** (from the Pyrethroid family) used by almost all of the popular mosquito misting companies are technically a neurotoxin that attacks the nervous system in targeted insects. The issue is it also is deadly to beneficial insects like bees and butterflies. It also is extremely toxic to marine life including the common koi fish.

Pyrethrins are highly to very highly toxic to fish. They are also very highly toxic to lobster, shrimp, oysters, and aquatic insects. This may be partly due to their higher toxicity at lower temperatures. There is evidence that long term exposure to pyrethrins can cause reproductive effects in fish and aquatic insects.

So what are Pyrethroids?

The extract from the Chrysanthemum plant containing pyrethrins is called pyrethrum. Pyrethroids are synthetic, or man-made, versions of pyrethrins. While pyrethrum extract is composed of 6 esters which are insecticidal, a synthetic Pyrethroid is composed of only one chemically active compound. Note that the vast majority of products in this sector are the synthetic Pyrethroids rather than the naturally derived Pyrethrums.

What are the Side Effects from Pyrethroids?

There are a lot, it should be noted that some people display few or no symptoms but others are affected severely.

Inhalation: coughing, wheezing, shortness of breath, runny or stuffy nose, chest pain, or difficulty breathing.

Skin contact: rash, itching, or blisters.

Long term effects: disrupts the endocrine system by mimicking the female hormone, estrogen, thus causing excessive estrogen levels in females. In human males, its estrogenizing (feminizing) effects include lowered sperm counts. In both, it can lead to the abnormal growth of breast tissue, leading to development of breasts in males and cancerous breast tissue in both male and females.

Neurotoxic effects include: tremors, incoordination, elevated body temperature, increased aggressive behavior, and disruption of learning. Laboratory tests suggest that permethrin is more acutely toxic to children than to adults.

Other effects: A known carcinogen. There is evidence that pyrethroids harm the thyroid gland. Causes chromosomal damage in hamsters and mice; deformities in amphibians; blood abnormalities in birds.

Many synthetic chemicals can cause significant health problems to human beings and pet animals. In fact, some chemicals are considered so dangerous that they have been banned by the EPA or in some entire countries. According to Wikipedia:

“Recent reports show that accidental poisoning rates have steadily been increasing since the use of natural pyrethrins, prompting some countries to ban their use altogether. In the USA, the use of pyrethrum in home bug sprays (ie. RAID) was banned in 2012 shortly after cases of fatalities in children emerged, prompting an investigation by the FDA” - <https://en.wikipedia.org/wiki/Pyrethrin>

So, what's the alternative?

This class of pesticides can also be called “natural” or “organic”. As we said before, these products are derived from the ground, plants, or even animals. While they have been heavily promoted in recent years, you might be wondering what the pros and cons of natural pesticides are.

Pros of Natural Pesticides

They are friendlier to the environment. Using natural pesticides is one way to reduce your carbon footprint. Generally, pesticides created from natural means are much more friendly to the environment. This means you will be more likely to go “green” if you are using natural pesticides versus the use of synthetic ones.

Natural pesticides work better over the long run because pests are less likely to develop a tolerance to them. This means that over a long period of time, these pesticides will be more effective than ones pests have developed a resistance to.

Natural pesticides are healthier. The use of natural pesticides may be healthier for you, your pets, and your children. This is especially true if you are using pesticides on a food garden, like ones with vegetables and fruits that you intend to consume.

Natural pesticides can be better for the quality of your soil. This results in better overall plant growth. It may also mean less chances of contamination. This is a big part of why natural pesticides are considered a solid step in the direction of going green.

Cons of Natural Pesticides

However, nothing is ever completely perfect, especially when it comes to the use of pesticides. So, here are some of the cons of using natural pesticides.

Natural pesticides may be more costly than synthetic ones. Unfortunately, many people who want to use only natural products may not be able to afford them. This is part of why synthetic pesticides still remain popular.

Some products may be less effective. Some natural products may be much less effective than synthetic ones. This largely depends on the ingredients used in the pesticide.

It is also important to note that just because a product is labeled as “natural”, you should not assume that it is completely safe for humans, pets, or the environment. Before using a natural pesticide, you should consult any warning labels that you see on the bottle.

What does 25B Mean?

25B is the EPA category of minimum risk pesticides. This means that almost all of the natural types of pesticides fall into this category. The EPA does not require registration for this category, but instead supplies lists of active and inert ingredients that the manufactures must choose from.

Because registration is not required, the EPA does not require proof of efficacy (effectiveness). The issue here is that untested pesticides are on the market in abundance and there are wide variances in how well they work on targeted insects.

Proof it Works

It is very advisable to demand laboratory test proof if you are considering using a natural pesticide. If the manufacturer can't or won't provide documented independent test results there is probably a good reason for that.

For example we researched a few natural mosquito pesticides with the following results;

- Mosquito Barrier™ - no efficacy test results found
- Nature Shield™ - no efficacy test results found
- Mosquito Magician® - Independent Efficacy Report found on their website showing a 98% kill rate on mosquitoes
- Ecosmart™ - no efficacy test results found
- Colton's Naturals Mosquito Repellent - no efficacy test results found

As you can see in this case only Mosquito Magician freely supplied efficacy test results for their 25B product. For the record they show a 98% kill rate on the common “Aedes Aegypti” mosquito.

Summary

Using natural pesticides definitely has many advantages but do your homework and make sure the product you are considering has been proven to work on the pests you are trying to eliminate.

Credit to:

<http://www.anapsid.org/pyrethroids.html>

<https://pestcontrolfaq.com/natural-pesticides-vs-synthetic-pesticides/>