

Poisonous Plants in our Homes and Neighborhood

We may all be familiar with poison ivy, but it is not the only poisonous plant in our neighborhood. There could be other toxic plants in our yards or home that are potentially hazardous to adults, children and pets.

Before I list some examples, I should explain why some plants are poisonous. The reason is they are defending themselves from plant eating insects, animals, and humans (herbivores). Plants methods of defense fall into two categories; mechanical and chemical. Their tactics can be amazingly sophisticated. Roses and cactus (thorns) are examples of a mechanical defense. Poison ivy are a chemical defense. Stinging nettles has a combination, with thin needle like hairs that “inject” chemicals into the skin causing a painful sting.

Their ability to mount a chemical defense is remarkable. The details of how they develop chemical defenses is beyond this article. However, below is a link to an 8-minute video that provides a great explanation of why and how plants defend themselves (courtesy of Megan Tierney, our local Virginia Cooperative Extension Agent). It explains how plants can produce phytochemicals such as Nitrogen Containing Compounds, Terpenoids, and Phenolics for their defense and what it does (around the 4-minute mark of the video).

<https://www.youtube.com/watch?v=ZRxVjuVR4YM>

Now to the poisonous plants. Virginia Cooperative Extension (VCE) lists 11 poisonous plants that are native to Virginia. They published a document called “The Socrates Project – Poisonous Plants in Virginia” to inform the public. It can be found at the following web site.

<https://vtechworks.lib.vt.edu/server/api/core/bitstreams/65bb3885-4ef6-4a3a-84f1-c23dc9674c5a/content>

Sometimes we introduce poisonous plants that are not “native” to Virginia. My first two examples fall into that category. My first example is an indoor plant called the Pencil Cactus or “sticks on fire”. I had one on my back porch for some time. If you break a branch, it oozes an irritating sap that is toxic to humans and pets. It is important to protect your eyes, hands and skin when pruning by wearing gloves. Avoid casual contact with the plant. Place your plant carefully so people and pets are not constantly brushing up against it and breaking its branches.



A toxic outdoor plant (not native to Virginia) is the Foxglove, which I have in my front yard. This plant has bright bell-shaped flowers and is quite pretty. It also has a chemical defense that uses a Terpenoids compound (please see the video). All parts of the plant are poisonous if eaten. Foxglove produces digitalin which affects the cardio system. They are commercially grown to synthesize the heart medicine digitalis. Caring for the foxglove plant should include keeping children and pets away. You will not see deer or rabbits eating this plant.



My final example is the Giant Hogweed (listed on the 11 poisonous plants native to Virginia). I identify this plant because it is both dangerous and an amazing example of the level of toxicity a plant can

develop as a defense. Fortunately, it is not currently found in our Yorktown area but was identified in the northern part of Virginia. It is listed as a Federal noxious weed and an invasive species that has spread to northern states such as New York and Pennsylvania. Skin contact with its sap just from touching the stem or leaves, in the presence of sunlight, can result in severe burning and blistering. An individual in Northern Virginia had to be hospitalized after handling the plant. The Virginia Cooperative Extension (VCE) has a publication that explains how dangerous this plant is. It can be found at https://www.pubs.ext.vt.edu/content/dam/pubs_ext_vt_edu/spes/spes-48/SPES-245.pdf It is worth reading. VCE recommends the following:

Do Not touch the plant. If you think you have the plant in your yard, take a detailed picture and send it the local Virginia Cooperative Extension Agent. They will confirm if it is indeed the plant. They will also determine an eradication plan. Again, always avoid contact.

Hopefully this article gives you an appreciation for the defensive methods of plants and that it is worth looking up any house plants you have to see if they could be toxic in some way.

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