## Segment for Week of 21 June 2021 Organic vs Conventional Pesticides

This is Julie Callahan bringing you information on shore friendly living and gardening from the Master Gardeners and Virginia Cooperative Extension. This week I will be talking to you about organic vs. synthetic pesticides.

As part of an Integrated Pest Management (IPM) strategy, choosing a pesticide to control a pest, whether it is a weed, plant pathogen, insect, or vertebrate pest may be the most appropriate option. When using pesticides, always choose a product that will solve your problem, yet pose the fewest risks to your health, and the health of non-target species and the environment. In recent years, organic pesticides have become a popular alternative to conventional (aka, synthetic) pesticides. However, there is often confusion surrounding the terms "organic" and "synthetic," and more confusion about their safety and efficacy. Knowing their similarities and differences will prepare you to choose the best management solution for your pest problem.

Organic pesticides are generally considered to be pesticides derived from naturally occurring sources such as minerals, plants, or animals. These chemicals are broken down relatively quickly by weather or soil microbes. Examples of organic pesticides include diatomaceous earth, neem oil, or pyrethrins. A broader definition of an organic pesticide, is "a pesticide approved by the USDA for use in organic agriculture." The USDA makes distinctions about what can be used in organic farming based largely on whether the compound is synthetic or non-synthetic. The USDA defines synthetic as "a substance that is formulated or manufactured by a chemical process or by a process that chemically changes a substance extracted from naturally occurring plant, animal, or mineral sources." Synthetic pesticides are often referred to as conventional pesticides. Some synthetically produced pesticides meet the criteria for use in organic agriculture. For example, copper sulfate and paracetic

acid can be used for plant disease control.

Regardless of whether a pesticide is organic or synthetic, it can still be dangerously toxic in certain doses. While organic pesticides are typically viewed as safer alternatives to synthetic pesticides, this is not always the case. It is essential that you read the label to determine the toxicity of each pesticide you use. Follow all label directions to protect yourself and the environment.

The point to remember is that organic does not mean "safe," just as synthetic does not mean "dangerous." Read the label to determine the hazards of each product you use. Choose the pesticide that best meets your needs.

For answers to Gardening questions call your local Accomack or Northampton County Extension Office. Here on the Shore call either 678-7946 or 787-1361

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OrganicvsConventionalSyntheticPesticidesAdvantagesandDisadvantages.pdf