TOM'S GARDEN BLOG JANUARY 2024

Ideas for Repurposing Your Christmas Tree.

Although the holidays are over, you don't have to put that tree out by the curb to be collected by the local street department. Although it will probably go through a composting facility and end up as mulch, there are better ideas. You will need a saw or a lopper.

You can save the branches to mulch garden beds, just cut them into smaller pieces. Cut them up even smaller and put in the compost pile. This will help the kitchen scraps break down faster. Contrary to popular belief, pine needles and boughs won't acidify your compost. It is all neutralized by microbes in the soil.

Use the branches and trunk for a bonfire; it lights and burns very well!

For the winter, place the tree under your bird feeder for a bird sanctuary.

If you have a chipper, wood chips are great for garden paths and mulch for the beds. Wood chips are much better than a sheet of plastic.

Strip the sturdy branches of needles and use as support stakes for houseplants and vegetable seedlings. Use stripped twigs under your plant pots on the deck or patio for better drainage.

Some communities take tree donations for putting in lakes and waterways for fish and wildlife habitat.

There are companies in some places that will pick up trees with decorations removed at the curb. Check with your local township or Chamber of Commerce.

Cut live trees are not a wasteful thing. They are grown specifically for the purpose and if there was no market for them, they wouldn't be sold. \

According to the National Weather Service, this was the second warmest December on record.

A Little Botany Lesson

Damage to most leaves can never be repaired. If an insect or animal severs a vein, the ends may be sealed over to prevent leakage and water loss, but the hole will not fill with new cells. Grass blades are something of an exception. Everyone who has grown a lawn knows how the grass keeps growing after it has been mowed. Few people notice that the pointed tip of each blade, once lost is not regenerated. Instead, the blades continue to grow from near their bases, from what are known as *intercalary meristems*, areas between the blade and the stem.

This evolutionary feat allows various grasses to survive in prairie habitats with herds of grazing animals, such as deer, antelope, bison, and cattle.

As long as the animal's teeth just snip off the tops of the grass blades, like a lawnmower does, the leaves continue to grow indefinitely.

That's why a farmer has to be careful to not over-graze a pasture as some animals, especially sheep, will take the grass down to soil level.

More Botany……

Alkaloids are among secondary plant products known as *phytotoxins*, which are poisonous to animals. Many plant species contain one or more of these substances. Some phytotoxins are distributed throughout the entire plant and some are only in certain parts. Rhubarb stems may be safely eaten, but their leaves contain enough oxalic acid to cause muscle and kidney damage, coma, or even death. The roots and shoots of a tomato plant contain the violently toxic alkaloid solanine, probably to fend off animals but not harm the ones who eat the fruit and help distribute seeds.

All parts of poison hemlock have the alkaloid coniine. The most famous victim of this poison was the Greek philosopher Socrates who, having offended the Athens government and according to the custom of the times, was forced to drink a hemlock brew.

I grow castor bean plants (Ricinus communis), every year for their beautiful and tropical leaves and seeds. However, I am well aware that all parts of the plant are poisonous and treat it accordingly in regard to pets and children. Ricin, one of nature's most lethal substances, is present throughout the plant, especially in the seeds. Only one to three seeds, if eaten, can be fatal to a child. Two to eight seeds can kill an adult. In preparation for the manufacture of castor oil, the ricin is removed.

Datura is another highly poisonous plant with beautiful flowers, also known as Devil's Trumpet. Daura species have been used throughout history not only as poisons, but also hallucinogens by various groups. It has been used in rituals by some Native American groups.

Fortunately, many phytotoxins cause vomiting which purges them from the body of an animal. The purple-black color of some toxic fruits and seeds gives a clear "do not eat" signal to birds and other animals. The color of Monarch butterfly larva warns birds to look else ware for food. The milkweed plant that the larva consume contains alkaloids and several other compounds that are toxic to animals. Milkweeds are fascinating plants. Over 100 species are native to North America. They are named for the milky sap in their stems.

Other caterpillars mimic the coloring and are safe from predation, although they don't contain the alkaloids.

Some plant species have repellent odors as a warning to animals that poisons are present.

Lobelia, lupine, caladium, foxglove, and azaleas are all poisonous. Deer will mostly leave them alone.

Planning a Butterfly-friendly Garden

Because butterflies are attracted to flowers, it is easy to plant a garden that both you and they can enjoy. A butterfly-friendly garden contains both adult nectar plants and caterpillar host plants. A few common vegetables also serve as caterpillar host plants. As an added bonus, butterfly gardens will also attract hummingbirds.

Since butterflies are cold blooded and need to be warm to fly and feed, plant your garden in a sunny area sheltered from the wind.

Choose the appropriate host and nectar plants to attract butterflies common in your area. Caterpillars often restrict themselves to a single species of host plant or a single group of closely related plants.

Dill, parsley, and fennel are excellent host plants.

Beware of the popular "butterfly bush", (Buddleia davidii). It is not native and considered invasive in North America. It will distract pollinators from native plants and does not support any caterpillars. Look for "Asclepias" in the botanical name for native plants.

A well-planned butterfly garden has blooming flowers throughout spring, summer, and early autumn. Don't forget the host plants. This provides a continuous food source and plants of varying heights for large and small butterflies.

It is best to plant both caterpillar host plants and nectar plants in clusters. Butterflies are more attracted to groupings of flowers than to a single plant with a few blooms. A lot of the cultivated, popular flowers have been selected for their appearance and not fragrance or the amount of nectar they contain. Common varieties are better than the fancier hybrids.

Limit your use of insecticides and herbicides, or don't use them at all. Insecticides kill beneficial insects as well as those considered a nuisance. Herbicides eliminate sources of food for caterpillars and may poison them. Areas managed for butterfly conservation should have no pest or herbicide applications.

The Xerces Society is a non-profit organization that helps protect pollinators through education. www.xerces.org