Plant Lore

Many plants that grow in Colebrook have an interesting history, generally going back to the Native Americans, from whom we have learned so much, and to whom we have given so little credit. Some are useful as medicines; others once were major contributors in the human food chain, while others were to be avoided at all costs. Here are some that you may not be familiar with, and others that may have certain points of interest that you are not familiar with:

Jack-in-the-Pulpit This interesting spring flower will eventually produce brilliant red berries. What ever you do, never put any part of this plant in your mouth! It won't kill you or make you sick, but the agony (that's the correct word) it will bring to your mouth for the next two hours will make you wish you were dead. The plant has a defense system that releases an enzyme that penetrates each and every one of the taste buds in your mouth and after doing so, turn to sharp crystals and enlarge. The first reaction is to rinse your mouth with water, which is the worst possible thing to do; your mouth will feel as though it is full of white-hot steel wool. The Native Americans knew that through drying rid the starchy root system of this substance. It then becomes safely edible, either sliced thinly or powdered into flour.

Cattails are represented by two species in Colebrook, the broad-leafed and the narrow-leafed. The easiest way to tell them apart is by looking at the brown flower head, or cat tail; the broad leafed usually has one solid hot-dog shaped cat tail, the narrow-leafed generally has a short section of bare stem separating the top male section from the lower female section.

These plants produce prolific seed (on average, there are some 220,000 seeds per spike). A quick experiment demonstrates how tightly the dry seeds are packed in the spike: Pull out a small tuft and watch it immediately expand to fill your hand with a downy mass.

Some part of this plant is edible and nourishing at every season of the year. In early spring, peeled, white cores of the young shoots and flower stalks can be eaten raw or boiled like asparagus. Later in the spring the green, immature flower spikes can be boiled and eaten like corn on the cob. Later still, the prolific yellow pollen can be shaken from the male spikes and used as a protein-rich flour, usually mixed with wheat flour. Sprouts from the root stocks may contain up to 30% sugar and starch, and as such provide excellent survival food in fall, winter and early spring. The food value of cattail is almost equal to that of corn or rice.

Cattails rank with the peanut in number of their potentially commercial uses. Flour and cornstarch from the rhizomes, ethyl alcohol from the fermented flour, burlap and calking from rhizome fibers, adhesive from the stems, insulation from the downy spikes, oil from the seeds, rayon from cattail pulp, and processed waste for chicken feed. These are only a few of the many products derived from the plants. The mature leaves, although inedible, have been used for paper pulp, matting, thatching and chair caning.

Native peoples used the crushed rhizomes for poultices and cattail down for bandaging and mattress, pillow and moccasin stuffing. They bound and trimmed the leaves to make dolls and floating toy ducks for their children. Another toy made from cattail leaves I observed in Holland, where a broad leaf, perhaps two or three feet long, has a small slit made along the center line about three-quarters of the way back from the

tip. The tip is then inserted into the slit so that it extends through about three or four inches. Place this on the surface of the water with the curved portion up, and you have a sailboat, complete with a sail and keel. They really work, and sometimes you can see several children having races with their squadrons.

Common Bladderwort This aquatic plant is found in the waters of swamps, ponds and marshes. It floats horizontally in the water and can be identified by its finely branched vinelike form, threadlike leaves, yellow flowers projecting above the surface and small sacs (bladders) attached in rows to leaf branches.

While this plant is not edible, the small bladders make it worth studying. Long ago they were thought to be flotation devices to give the plant buoyancy, but research has shown that they are in fact part of the plants digestive system – bladderworts are carnivorous, just as is the pitcher plant and sundew. Here is how it works: Small zooplankton, swimming in the swamp water, touches tiny hairs outside the mouth of a bladder, causing it to suddenly inflate with water. The quick suction into the bladder carries with it the creature that touched the hairs. Inside the bladder, digestive enzymes and bacteria go to work on the trapped victim, reducing it to plant nutrients in fifteen minutes to two hours, depending on its size and digestibility. Special cells then extract the nutrient water into the stem. This restores a partial vacuum and deflated concave shape to the bladder, thus resetting it to trap again.

Zooplankton is attracted to the bladders by a sugar secreted from special glands outside the trapdoor device. This almost microscopic portal, which opens and shuts in something like two-thousandths of a second, is one of the most intricate wonders of the plant kingdom.

Joe-Pye-weeds These are tall herbs that flower in the late summer and fall with pinkish-purple domed or flat-topped flower clusters, and are commonly seen around streams and meadows locally. The most interesting thing about this plant is its name. Who was Joe Pye? His name has come down through oral tradition. Researchers have tried to trace this legendary Indian herbalist and healer who supposedly befriended New England pioneers, but the name on the plant is really all that remains of him. He may have been a Mohegan who lived and practiced his homeopathic arts near Salem, Massachusetts, in colonial times. It is said that he brewed an elixir from this plant to induce sweating in typhus fever.

Laurel Mountain laurel, our state flower, has a fascinating flower. The bisexual laurel flowers have a delicate spring-loaded mechanism that is easily tripped and released by a nectar-foraging insect. The ten spokelike stamens are arched outward, their pollen-bearing anthers held under tension in small pockets ringing the flower center. The slightest disturbance releases them, flinging a sticky string of pollen inward on the forager. After a few minutes, the stamens reset themselves in their tensile positions. You can test this mechanism with a pin or blade of grass.

Historic Bytes

Bob Grigg