POISONOUS PLANTS

Many plants native to Virginia can be harmful to humans...a guide to identifying and coping with them on your outdoor adventures.

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It is a little sobering for those who like foraging for wild foods while exploring the woods, to turn their attention to the harmful nature of some of the things which are growing around us. Nevertheless, it is important to take a balanced attitude toward poisonous plants. It is wise to become acquainted with at least the commoner harmful plants of one’s area, find out how dangerous they can be, and know a few reasonable precautions that can be taken.

There is a large class of plants which cause irritating skin reactions that may be highly unpleasant, but not fatal. The effects differ widely from person to person. The best-known and most widespread is, of course, poison ivy, *Rhus radicans*. Together with poison sumac, *R. Vernix*, and poison oak, *R. Toxicodendron*, poison ivy belongs in the *Anacardiaceae* or cashew family. It is hard to avoid all three of these plants if one does anything outside at all, but the ill effects can be minimized if one follows every suspected contact with a thorough washing using strong soap.

Nettles are a main cause of dermatitis, in particular *Laportea*, the wood nettle; *Cnidoscolus*, the spurge...
nettle; and *Urtica*, the stinging nettle. There are other plants reported to produce skin reactions: trumpet-vine, *Campsis radicans*, some species of *Euphorbia*, and a host of others, but their effects vary so widely among different people that it is difficult to present a definitive list.

Plants considered as internal poisons are those which cause a chemical or physiological upset, even leading to death, when eaten.

In the lily family there are some beautiful plants with deserved bad reputations. *Convallaria majalis*, the sweet-smelling lily-of-the-valley, contains cardiac glycosides which cause irregular heartbeat and stomach upset. All parts of the plant are considered toxic. Star of Bethlehem, *Ornithogalum umbellatum*, has poisonous alkaloids in the bulbs and some in the above-ground parts. The roots of Jack-in-the-pulpit, *Arisaema triphyllum*, in the Arum family, can produce severe burning in the throat, caused by crystals of calcium oxalate which become embedded in the mucous membrane. *Symlocarpus foetidus*, the early blooming skunk cabbage, also possesses this unpleasant compound.

Among the dicotyledons, some of the most attractive and unlikely plants are in fact poisonous. In the buttercup family monkshood, *Aconitum*, contains an alkaloid causing "severe gastro-intestinal symptoms which can be fatal."

The spring-blooming May apple, *Podophyllum peltatum* has a poisonous resinoid in the plant and unripe fruit, although when the fruit is completely ripe it can be eaten without harm.

It is probably safest to teach children to stay away from all wild food that is not served to them, and yet it is hard to deprive them of the great joys of wild berry picking. If they are sternly limited to the types which are commonly eaten: strawberry, blackberry, dewberry, raspberry, blueberries, persimmons, apples and grapes, they should be able to enjoy wild gathering. Holly berries are slightly poisonous, and mistletoe berries are quite dangerous. Burning-bush seeds and buckeyes can cause gastric problems, as can the berries of Virginia creeper and English ivy.

Another family of plants which has a bad reputation is the Ericaceae. Mountain laurel, *Kalmia latifolia*, contains a poisonous resinoid in the leaves, twigs, flowers and pollen grains. Poison honey is occasionally made when bees visit laurel. The related species, *K. angustifolia* and *K. polifolia*, are known as lambkill, sheep laurel or wicky, and all three plants are hazardous for stock which may be browsing in areas where they grow. Rhododendrons and azaleas contain the same toxic substance and, although cases of poisoning are rare, these plants should all be treated with circumspection.

Elderberries (*Sambucus sp.*) are partly edible and partly poisonous. The roots, stems and leaves, and (to a lesser extent) young flowers and unripe berries contain a poisonous alkaloid and cyanogenic glycoside which can cause severe gastric disorders. The ripe berries, however, and sometimes the flowers, are used for pies, wine, jelly and pancakes.

The fine tightrope which we seem to be walking between nourishing and poisoning continues through the potato family or *Solanaceae*. In this group belong some of the meaner poisonous plants, and some of the basic staples of our everyday diet. Jimson weed; *Latura Stramonium*, is a very common weed, growing throughout the state in fields, roadsides and waste places. It is a tall annual with a widely branched greenish-purple stem that smells unpleasant. The leaves are simple, ovate with irregular wide-spaced teeth around the edge. The white or bluish flowers are funnel-shaped, and the fruit is a dry ovoid capsule covered with many sharp prickles. The alkaloids contained throughout the plant, especially in the seeds and leaves, produce thirst, pupil dilation, hallucinations, coma and death. Children have been poisoned by sucking nectar from the flowers. Only a small amount is sufficient for rapid and severe symptoms.

The poison control centers of this country deal with thousands of poisonings every year. It has been estimated recently that 3.5% of these were due to plants, and some of these cases resulted in fatalities. Any effort to reduce the adult ignorance and childish curiosity which largely causes these accidents is to be encouraged.

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Several errors were discovered in the Poiso.nous Plants article in our June Issue. On page 6 the captions for the star of Bethlehem and mountain laurel were switched. The left hand drawing is mountain laurel while the right hand illustration is star of Bethlehem.

On page 7 the pokeweed caption is mispelled (pokewood). At the top of the center column on page 7 Aconitum is the correct spelling for the generic name of monkshood. At the bottom of that column, Solanaceae is the proper spelling of the potato family name. Near the top of the third column on page 7 the generic name of jimson weed (Datura) is distorted and thus hard to read.

Our apologies to Elizabeth Murray and to Lucile Walton whose name was mispelled in the credit line.