



Poison Ivy

Toxicodendron radicans



Poison ivy contains substances that sensitize a person's skin. These substances cause the cells of the skin to produce an "antisubstance." Antisubstances are long-lived and can be transferred from one cell to another throughout the skin. Thus, even though the sensitizing substance originally touched only one portion of the skin, the entire surface of the body can become sensitized to it. When the sensitizing substance and the antisubstance come together, as happens when a person is exposed to the poison ivy plant a second and following times, they react together in a way that produces a small watery blister on the skin at the place where the sensitizing substance or poison contacted it. Such rashes are usually accomplished by intense itching and in extreme cases may be severe.

Injury

Approximately 70% of the U.S. population is likely to acquire dermatitis from casual contact with *Toxicodendron radicans* (poison ivy) or its cousin, poison sumac and poison oak. The skin irritant of this group is a nonvolatile phenolic substance called urushiol which is found in all parts of the plant, including roots and fruit, with the greatest abundance in sap. This irritant is very stable, effective in the depth of winter, and in the dead and dried roots and vines. Many people have caught poison ivy from dead poison ivy plants. It usually takes a year or so before the toxic properties weather away. Poisoning is usually, but not always, caused by contact with some part of the plant. A very small quantity of the poisonous substance is capable of producing severe inflammation of the skin and can easily be transferred from one object to another. Sensitive people may contact the irritant from smoke, dust, contaminated clothing and tools, articles and animals.

Never burn any part of the poison ivy plant. The smoke can cause eye and lung irritation. Domestic animals can bring the oils in on their fur and contaminate you and your household.

Description

Poison ivy is a woody plant that shows a tremendous variation in growth pattern and leaf characteristics. Usually, it's found in the vine form, but growth may be either as an erect shrub; a vine climbing by aerial rootlets on fences, walls or trees; or it may lie prostrate on the ground. Leaves are arranged alternately (one on a node) and are compound with three leaflets. These three leaflets on a leafstalk are usually referred to as leaves in groups of threes. The old saying, "leaflets three, let it be", is a reminder of the consistent character of the plant. The leaves may have a glossy

or dull surface or may even be somewhat hairy, especially on the lower surface. The edges of the leaves are smooth, toothed or somewhat lobed.

In early spring, emerging poison ivy leaves are an interesting reddish color. After a while they may be a shiny green. They often will be dull green during the summer months but turn yellow or scarlet as autumn approaches. The flowers and fruit are always in clusters on slender stems that originate in the axis of the leaves. The fruits usually have a white, waxy appearance and ordinarily are not hairy. The clusters of small, round, waxy, berry-like white fruit appear in late summer and often persist all winter. Seeds germinate freely. Seedlings soon produce creeping stems or rootstocks from the lowest nodes.



Distribution and habitat

Poison ivy is common through Connecticut but is especially abundant in dry, rocky soil, in thickets along the edges of fields, woods, roads and paths. Poison ivy can flourish in the woods where soil moisture is plentiful or in very dry sites on the most exposed hillsides. When the vines grow on trees, the aerial roots attach the vines securely and often give the general appearance of a fuzzy rope. Poison ivy even grows commonly in sandy soils along the shore. Because of its great variation in appearance from place to place, a person who is familiar with poison ivy in one part of the country, may not recognize it in another.

Management

Poison ivy persists and spreads by means of its creeping stems and rootstocks. An effective method of eradication is to destroy both the aerial and underground parts. In any treatment, parts of plants may be missed.

Controls

In an area that can be mowed, poison ivy may be effectively controlled by close mowing, depriving it of growing new leaves thereby sapping the root of its carbohydrate stores. It will be necessary to repeat the mowing to kill and starve out the stem and root. Digging up the roots is not as effective since any small root left behind will grow. For the large hairy, vines climbing up trees, cut through the vine stopping at the bark of the tree. Cut off any regrowth of leaves from the remaining stump continuously.

Wear protective clothing, long pants, long sleeves and gloves to keep skin from coming in contact with the irritating poison ivy oils. Wash clothes and gloves in hot soapy water immediately to avoid future contact with the oil on the clothing. Clean all tools used in cutting vines or digging out roots.

A nonselective systemic herbicide can be used to control/kill poison ivy according to label instruction. Use it with caution, as it will kill everything it contacts. Treatments should be made in late summer or early fall, when the plant is storing carbohydrates in the root systems. Repeat sprays may be necessary, but it is systemic, permanent control can be expected with two or three applications. These chemicals are taken in by the leaf and root, disrupting the growth process in several ways and also have the benefit of not exhibiting herbicidal properties in the soil. The chemical mimics several different growth hormones affecting cell division, elongation and cell growth. The end result is distorted, abnormal cell tissue ending in curling of the more susceptible new growth and eventually death of the plant. These may be used spring through fall for effective control. Watch the area carefully and repeat the treatment if you observe any new growth.

If you prefer not to use a synthetic herbicide product, sprinkling borax powder on the foliage is a control option. It must be watered in and will take up to a month to work. You may need to perform this treatment for more than one growing season and it will make the area inhospitable to other plants. Although applying salt water to poison ivy can kill it, salt water will also kill other plants and contaminate the soil.

Revised by UConn Home and Garden Education Center 2016.

The information in this material is for educational purposes. The recommendations contained are based on the best available knowledge at the time of printing. Any reference to commercial products, trade or brand names is for information only, and no endorsement or approval is intended. The Cooperative Extension system does not guarantee or warrant the standard of any product referenced or imply approval of the product to the exclusion of others which also may be available. All agrochemicals/pesticides listed are registered for suggested uses in accordance with federal and Connecticut state laws and regulations as of the date of printing. If the information does not agree with current labeling, follow the label instructions. The label is the law. Warning! Agrochemicals/pesticides are dangerous. Read and follow all instructions and safety precautions on labels. Carefully handle and store agrochemicals/pesticides in originally labeled containers immediately in a safe manner and place. Contact the Connecticut Department of Environmental Protection for current regulations. The user of this information assumes all risks for personal injury or property damage. Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Gregory J. Weidemann, Director, Cooperative Extension System, University of Connecticut, Storrs. The Connecticut Cooperative Extension System offers its programs to persons regardless of race, color, national origin, sex, age or disability and is an equal opportunity employer.