Poison Ivy
Rhus radicans
Family: Anacardiaceae

Poison
All parts of the plant are poisonous, containing the colorless or pale yellow oil urushiol. This poison is persistant even on centuries old dried samples and it takes very little to cause a rash. The leaves often have dark spots because the oil turns dark brown once it is exposed to air.
Name (Rhus toxicodendron: Poison Oak which does not occur in eastern Canada and T*oxicodendron radicans)*

History
Growth Habit
Weeding

The poisonous sap is released only after the epidermis of plants is ruptured. Most people develop Rhus-dermatitis 24-48 hours after contact. Healing time varies from a few days to several weeks, and healed sites often remain supersensitive to any further contact with sap for several months.

It is oil that oozes from any cut or crushed part of the plant, including the roots, stems, and leaves. After exposure to air, urushiol. Damaged leaves look like they have spots of black enamel paint making it easier to recognize and identify the plant. Contact with urushiol can occur in three ways:

- Direct contact — touching the sap of the toxic plant.
- Indirect contact — touching something on which urushiol is present. The oil can stick to the fur of animals, to garden tools or sports equipment, or to any objects that have come into contact with it.
- Airborne contact — burning poison plants put urushiol particles into the air.

When urushiol gets on the skin, it begins to penetrate in minutes. A reaction appears, usually within 12 to 48 hours. There is severe itching, redness, and swelling, followed by blisters. The rash is often arranged in streaks or lines where the person brushed against the plant. In a few days, the blisters become crusted and take 10 days or longer to heal.

Poison plant dermatitis can affect almost any part of the body. The rash does not spread by touching it, although it may seem to when it breaks out in new areas. This may happen because urushiol absorbs more slowly into skin that is thicker such as on the forearms, legs, and trunk.

Sensitivity develops after the first direct skin contact with urushiol oil. An allergic reaction seldom occurs on the first exposure
Poison ivy grows in fertile, well-drained soil.
---Description---The root is reddish and branching; the leaves rather large, threeparted (which will readily distinguish it from the five-parted *Ampelopsis*). The central leaflet has a longer stalk, the lateral ones are almost stalkless. The leaflets are entire when young, but when full-grown they are variously indented, downy beneath, thin and about 4 inches long. They abound with an acrid juice, which darkens when exposed to air, and when applied to the skin produces the inflammation and swelling referred to. When dry, the leaves are papery and brittle, sometimes with black spots of

exuded juice turned black on drying. The flowers are in loose, slender clusters or panicles, in the axils of the leaves and are small, some perfect, others unisexual, and are greenish or yellowish-white in colour. They blossom in June, and are followed by clusters of small, globular, duncoloured, berry-like fruit.

P.I. is extremely variable in its forms, growing as a vine, a ground cover, or upright. Old vines get very hairy looking. the 3 glossy or dull green leaflets, 2 to 4 inches long. The leaves are somewhat variable in shape

The white, waxy berries are a popular food for songbirds during fall migration and in winter when other foods are scarce. Robins, catbirds and grosbeaks especially like the berries. Many birds feed on insects hiding in the tangled vines. Small mammals and deer browse on the poison ivy foliage, twigs and berries. while the fruits remain on the plants through the winter

fall, the leaves can turn colors such as yellow or red when other plants are still green. The berry-like fruit on the mature female plants also changes color in fall, from green to off-white. In the winter, the plants lose their leaves. In the spring, poison ivy has yellow-green flowers

If you are going to be where you know poison ivy likely grows, wear long pants, long sleeves, boots, and gloves. Remember that the plant's nearly invisible oil, urushiol, sticks to almost all surfaces, and does not dry. Do not let pets run through wooded areas since they may carry home urushiol on their fur. Because urushiol can travel in the wind if it burns in a fire, do not burn plants that look like poison ivy.

Urushiol remains active for up to several years. Never handle dead plants that look like poison ivy

Urushiol itself is not poisonous. However, urushiol which remains on your skin for more than five minutes or so will begin to be absorbed and metabolized.

The metabolites bind with skin proteins, forming new structures. In about 85% of the human population, the immune system sees these structures as foreign and attacks them. It is this immune response, or allergic reaction, which causes the itching, inflammation, and blistering of the skin. These symptoms generally appear after half a day to two days. After a few more days, when all of the alien structures have been destroyed (along with much of the surrounding tissue), the rash begins to heal..

If you've been exposed to poison ivy, oak or sumac, if possible, stay outdoors until you complete the first two steps:

- First, Epstein says, cleanse exposed skin with generous amounts of isopropyl (rubbing) alcohol. (Don't return to the woods or yard the same day. Alcohol removes your skin's protection along with the urushiol and any new contact will cause the urushiol to penetrate twice as fast.)
- Second, wash skin with water. (Water temperature does not matter; if you're outside, it's likely only cold water will be available.)
- Third, take a regular shower with soap and warm water. Do not use soap before this point because "soap will tend to pick up some of the urushiol from the surface of the skin and move it around," says Epstein.
- Clothes, shoes, tools, and anything else that may have been in contact with the urushiol should be wiped off with alcohol and water. Be sure to wear gloves or otherwise cover your hands while doing this and then discard the hand covering.

- If you think you've been exposed, wash the area as soon as possible, preferably within an hour after exposure, with lots of cool running water. A lake or a river works well. Don't use soap unless it contains no oils (oil will cause the urushiol to spread). In the woods, look for bouncing bet (*Saponaria officinales*). With its high saponin content, it makes a workable oil-free soap. You may also wash the area with alcohol or another solvent, rinsing with plenty of water, but keep in mind that this strips your skin of its protective oils, making it more vulnerable to urushiol.

If you don't cleanse quickly enough, or your skin is so sensitive that cleansing didn't help, redness and swelling will appear in about 12 to 48 hours. Blisters and itching will follow. For those rare people who react after their very first exposure, the rash appears after seven to 10 days.
If you don't want to use chemicals, "manual removal will get rid of the ivy if you're diligent," says Neal. You must get every bit of the plant--leaves, vines, and roots--or it will sprout again.
Never burn the plants. The urushiol can spread in the smoke and cause serious lung irritation.
Do not attempt to compost it and never, ever try to burn it.

Poison Ivy

- grows around lakes and streams in the Midwest and the East
- woody, ropelike vine, a trailing shrub on the ground, or a free-standing shrub
- normally three leaflets (groups of leaves all on the same small stem coming off the larger main stem), but may vary from groups of three to nine
- leaves are green in the summer and red in the fall
- yellow or green flowers and white berries

There are three methods that can be effective in eradicating poison ivy in ornamental beds. They include hand pulling or grubbing; severing the vine and then treating the regrowth with an herbicide; or applying an herbicide to individual leaflets.

Hand pulling is most successful when the soil is moist. The roots can be dug and pulled out in long pieces. Care should be taken to remove the entire root because the plant can resprout from sections of root left in the ground. Avoid skin contact by wearing gloves while you work and washing clothing and gloves immediately after. The washing machine should be rinsed thoroughly afterward to eliminate the possibility of contaminating other clothing.

Vines growing on trees can be difficult to pull out of the ground because their roots may be entangled with the tree's roots. Sever the vine at the base and carefully pull it out of the tree. Glyphosate (eg., Roundup or Ortho's Kleeraway Grass & Weed Killer), a non-selective, translocated herbicide, can be applied to the new shoots that will soon emerge

from the base of the old plant. This herbicide is most effective if applied to actively growing foliage two weeks on either side of full bloom, in early summer.

Another herbicide that may be used is triclopyr (eg., Ortho's Brush-B-Gon Poison Ivy Killer). Poison ivy is difficult to control even with herbicides. Neither glyphosate nor triclopyr will provide complete control from a single application, and repeat applications to treat regrowth may be necessary. Other herbicide brands or formulations may be found at your local garden center. Be sure to read the label to ensure that poison ivy is listed on the label, then follow the manufacturer's directions.

http://res2.agr.gc.ca/ecorc/poison/radicans_e.htm

http://www.gov.on.ca/OMAFRA/english/crops/facts/99-015.htm

http://www.ovma.on.ca/Weeds/poison.htm

http://www.pmra-arla.gc.ca/english/pdf/pnotes/poisivy-e.pdf

http://cal.vet.upenn.edu/poison/index.html

http://www.milkyspore.com/safetysheets.htm

http://www.milkyspore.com/msds%20sheets/Poison%20Ivy%20Defoliant.doc

http://www.naturenorth.com/summer/pivy/pivy2.html