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Poison Ivy

Michigan State University

Cooperative Extension Service

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Issued November 2006

4 pages

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# Poison Ivy

Common names: poison ivy, poison oak, hiedra venenosa (Spanish)  
Scientific name: *Toxicodendron radicans* Linnaeus (Sapindales: Anacardiaceae)

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## Identification

Poison ivy is usually a creeping vine that uses aerial rootlets to attach itself to the bark of trees or grows horizontally along the ground. However, it can also be an erect shrub. The bark is gray and can be covered with hairlike rootlets (Fig. 1). Twigs are slender and yellowish brown and can have fine hairs.

Poison ivy has compound leaves that consist of three leaflets. The leaflets are 2 to 5 inches (5 to 12 cm) long and green or yellowish green during the growing season and red in the fall. The leaves are arranged in an alternate pattern on the stem. The terminal (end) leaflet has a longer stalk than the lateral (side) leaflets (Figs. 2 — A, B and C).



**Figure 1. The aerial rootlets of poison ivy have a hairlike appearance and contain the same poisonous oil that is found in the leaves.**



**Figures 2A, B and C (right). Poison ivy leaves can take many forms. However, the leaflets of three remain constant, and the space between the two lateral leaflets is reddish.**

## Poison Ivy

Clusters of small, round, shiny, whitish or yellowish fruits appear in August and September. The winter buds are reddish light brown and look like small fingers with fine hairs.

Poison ivy is most commonly found in open areas, such as forest margins and lake and stream shores, and also climbing up fences and trees. It is very vigorous in alkaline soils and floodplains. See Figs. 3 and 4 for some plants commonly mistaken for poison ivy.



**Figure 3. Box elder (*Acer negundo*).** Although it is normally a medium-sized tree, box elder seedlings are often confused with poison ivy. Notice that box elder leaves grow opposite each other, while poison ivy leaves are alternate.



**Figure 4. Red raspberry (*Rubus strigosus*).** Red raspberry stems have fine prickles, and the leaves have more teeth than poison ivy leaves.

**Effects and symptoms:** Poison ivy contains a poisonous vegetable oil called urushiol in the leaves and stems, but all parts of the plant contain potential skin irritants. Some people are more sensitive to the plant than others.

Repeated exposure can increase sensitivity. A person's sensitivity to poison ivy can change throughout his or her lifetime. In fact, previously non-sensitive people have been known to become sensitive to poison ivy after being exposed to it through open wounds. When a sensitive person touches the plant, the oil can cause redness and the formation of a rash accompanied by itching, swelling and/or blisters (Fig. 5).



**Figure 5. An example of an allergic reaction to poison ivy accompanied by blistering.**

**Prevention:** The best way to prevent exposure to poison ivy is to learn how to identify the plant and then avoid contact with any part of it, including the fruit. Contact with objects, clothing, people and animals that have touched the plant should also be avoided. If you know that you or someone else has had contact with the plant or its oil, wash the affected areas immediately with soap and water, rubbing alcohol or one of the various commercial products available for poison ivy prevention, such as Tecnu or Zanol. If you know beforehand that you are going to pass through an area where poison ivy is growing, you should wear a long-sleeved shirt, long pants and shoes or boots, rather than shorts and sandals. Washing your clothing afterwards with detergent is normally effective in removing the plant toxin. If you work with or near poison ivy, you should first make sure that you are wearing adequate clothing and gloves. After you have finished the job, you should clean any tool used with rubbing alcohol or throw it away.

**Treatment:** It is important first to wash affected areas of the body with soap and water before beginning further treatment. Cold compresses, calamine lotion or hydrocortisone cream are commonly applied to alleviate

symptoms when rashes, blistering, reddening and itching of the skin have developed. It is very important not to scratch because you could spread the plant toxin to other parts of the body. Symptoms usually disappear within 14 days. If you still have symptoms after 14 days, you should consult a doctor about receiving more treatment.

**Control:** First and foremost, do not burn any part of poison ivy. The smoke can contain the plant toxin, which can then be inhaled and cause severe irritation of the lungs or possibly even death in sensitive persons. Also, remember to wear proper clothing and gloves to avoid contact with the plant when attempting control measures.

It is difficult to plow up or try to remove the roots of poison ivy because many root pieces will remain that will eventually sprout and replace the original plants. Cutting the plant down to the ground repeatedly for many years will exhaust the root system and eventually kill the plant. However, this method increases the chances of exposure to the plant toxin. It is recommended that you put plant waste from poison ivy in a trash can or plastic bag rather than a compost pile.

Poison ivy is very resistant to conventional herbicides. Restricted-use herbicides are available but may be purchased and applied only by professionals certified to use them. Many over-the-counter general-use products are available, but be certain the label states that the product may be used for poison ivy control. Read the product label carefully to find out when and how it should be applied. Follow all of the safety precautions on the label to avoid contaminating soil, water and yourself. Poison ivy killed by herbicides still contains the plant toxin, so be certain to wear protective clothing and gloves when removing it.

If you prefer not to use a herbicide product, sprinkling borax powder on the foliage is a control option. This should kill the plant in 3 weeks. You may need to perform this treatment for more than one growing season. Although applying salt water to poison ivy can kill it, salt water will also kill other plants and contaminate the soil.

Each one of these methods has advantages and disadvantages. Whether you choose to try to control it or simply want to avoid it, the first step is to learn to identify poison ivy. If you have any questions about poison ivy, contact your county MSU Extension agent.

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*Photos are from author, unless otherwise noted. The author acknowledges the review and helpful suggestions of Carolyn Randall, coordinator, Pesticide Safety Education Program, Michigan State University.*

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