Summertime means many things to Alabamians. To kids, it means a break from school, to parents it means a much-needed vacation, and to many it means a yearly itchy rash.

People are at an increased risk for experiencing the negative impacts of a brush with poison ivy (*Toxicodendron radicans*), poison oak (*T. pubescens*), or poison sumac (*T. vernix*) during the spring and summer months when these plants have leaves. Learning to recognize these poisonous plants can help Alabamians avoid this annual itchiness while enjoying the outdoors.

This publication is a guide for identifying the common poisonous plants in the state, provides tips for minimizing exposure to these plants and possible treatments, and offers practical ways to control these plants.

**Characteristics**

**Poison Ivy and Poison Oak**

Poison ivy and poison oak look similar and can be easily confused. Each has leaves with three leaflets that join together at a red center (figures 2 and 3). These two species are responsible for the old adage “Leaves of three, let them be.” The leaflets are commonly 2 to 8 inches long and ¼ to 5 inches wide and have scattered, jagged teeth along the edges, and some have a larger tooth close to the bottom edge of the leaflet that gives them a mitten-like shape. The edges of the teeth on the leaflets of poison oak are rounded, and those of poison ivy are pointed (figures 2 and 3).

Poison ivy grows as a vine that may run along the ground or up the sides of trees, houses, or other vertical surfaces. The vines, which can vary in size from less than ¼ inch to more than 2 inches in
diameter, appear “hairy” due to tiny roots that extend from the vine (figure 4). In contrast, poison oak is shrublike in appearance and has stems up to 3 feet tall. Both of these plants produce clusters of small white to tan fruits (figure 5).

Poison ivy is found in a wide variety of habitats and is especially common in wooded areas and along forest edges. Poison oak is typically found in drier, more open forests, fields, and right-of-ways.

**Poison Sumac**

Poison sumac is a close relative of poison ivy and poison oak, but it looks very different. Poison sumac leaves have 7 to 15 leaflets that are commonly 2 to 4 inches long and ¾ to 2 inches wide. The leaflets, which are arranged along the stem in pairs (figure 6), are oblong with sharply pointed tips and smooth edges. The stems and leaf stalks are often a bright red color. Poison sumac grows as a shrub or small tree, reaching up to 20 feet tall (figure 7) in open or wooded swampy areas. Smooth, greenish white fruits produced during late summer may persist on the plant through the fall and winter (figure 8).

**Look-Alikes**

Many people confuse Virginia creeper (*Parthenocissus quinquefolia*) with poison ivy. Although the blue fruits of Virginia creeper may be poisonous to eat, very rarely does contact with Virginia creeper leaves or stems cause an allergic reaction, and the plant is usually considered harmless. The leaflets of both Virginia creeper and poison ivy are variably toothed with red centers where the leaflets join, but Virginia creeper generally has five leaflets (figure 9). Developing or damaged groups of leaves along a Virginia creeper vine may have three leaflets, and a few may have seven, but most have five. Poison ivy never has five leaflets. The second difference between the two plants can be seen along the vine. Poison ivy has numerous hairlike rootlets emerging from the main stem (vine), giving it the appearance of a centipede. The rootlets of Virginia creeper are more widely spaced, with small attachment disks at the ends.

Other plants commonly confused with poison ivy include box elder (*Acer negundo*) seedlings and climbing hydrangea (*Decumaria barbara*). However, box elder leaves are arranged opposite each other along the stem (figure 10), whereas poison ivy leaves are arranged alternately. Climbing hydrangea vines are hairy and may appear almost exactly the same as poison ivy, but climbing hydrangea has opposite, simple leaves with smooth edges or just a few shallow teeth (figure 11).

Poison oak also has a look-alike. Fragrant sumac (*Rhus aromatica*) is often mistaken for poison oak; however, unlike the white fruits of poison oak, the fruits of the fragrant sumac plant are red (figure 12).

Smooth sumac (*Rhus glabra*) and winged sumac (*Rhus copallinum*) are commonly occurring shrubs that may be misidentified as poison sumac. The leaflets of smooth sumac have toothed edges and are greater in number (11 to 31) than those seen in poison sumac. Winged sumac is easily identified by the leafy wings along the leaf stalk. The fruits of both of these nonpoisonous sumacs are red, unlike those of poison sumac (figures 13 and 14).

A good rule of thumb for any look-alike plant is, If you’re not sure, don’t touch it!

**Avoidance**

Touching any of the three poisonous species may result in an itchy rash of blisters. One out of every two people is allergic to toxicodendrol, an oily compound found in all parts of these plants. Simply touching the leaves may expose you to the oil, and additional oil is released when plant parts are crushed or damaged. The oil resists breakdown and may cling to clothing, tools, and pet fur for long periods of time and may even persist on a secondary surface for up to a year. Touching these secondary sources can also cause an allergic reaction. While it might be difficult to keep pets from touching poisonous plants, avoiding direct contact with them will decrease the chances of an unpleasant experience. Although not everyone is allergic to these plants, allergies may develop with increased contact; thus, even people who do not seem allergic now should avoid these plants.

Avoiding poison ivy may be tricky since it is often found in many of the places enjoyed during the summer, such as forested areas, fields, gardens, and backyards. Poison oak is not as common due to its preference for dry, sandy soils, and poison sumac is generally only found in wet, swampy areas.
Learn to recognize poisonous plants and follow these tips

- Always wear long pants and closed-toed shoes when in wooded areas or fields.
- Carefully inspect tree trunks before touching them since poison ivy often clings to them.
- Always wash clothes immediately upon return from outdoor recreation.
- Be wary of leafy, green plants that carpet the forest floor. Poison ivy and poison oak commonly grow in this fashion.
- Wash skin with cold water and soap or rubbing alcohol within 10 minutes if contact is suspected. Do not use hot water as this may make the problem worse by opening skin pores.
- Do not eat any part of these plants.
- Do not burn any part of these plants. The allergen can become airborne and be inhaled.
- Consider hiking in late fall or winter when these plants have dropped their leaves.
- Avoid contact with these plants even if not allergic. Additional exposure may lead to development of an allergy.
- Wear vinyl gloves with long sleeves tucked in when weeding gardens.
- Apply a preventative lotion, such as Ivy Block, before going outdoors.
**Figure 5. Poison ivy with white fruits present**

**Treatment**

Contact with poison ivy, poison oak, or poison sumac usually results in a red, swollen, painful, or itchy rash of blisters for those allergic to these species (figure 16). Mild cases show a few rash patches; however, hospitalization may be necessary in extreme cases. Sensitivity to toxicodendrol varies from person to person.

People suffering from a rash should not be worried about spreading it to other parts of the body or to other individuals. After the rash appears, it is not contagious, and the observed spreading of the rash on the person’s skin is only the result of a delay in reaction from previous exposure or from re-exposure due to contact with clothing and equipment that has not been properly cleaned. However, scratching may expose the body to bacterial infections. Although the rash may be visible in as little as a few hours, it may take up to 3 weeks for the entire rash to appear.

In mild cases, hydrocortisone creams or other anti-itch creams can be applied to soothe irritation. Some products are marketed specifically for treatment of poison ivy and poison oak rashes and can be obtained over-the-counter at local pharmacies. Calamine lotion and oral antihistamines can also provide some relief. A few other suggestions include cold packs, compresses containing Burow’s solution (a mixture of aluminum acetate and water), and oatmeal baths, all of which are available over-the-counter at most pharmacies. Oral or injected low-dose steroids (obtained through prescription) work well in clearing up rashes; however, most cases will clear up in a matter of weeks without medical attention.

Approximately 10 to 15 percent of people will have severe enough reactions to toxicodendrol to require medical treatment, often in the form of oral steroids administered by a doctor. Eating the plants can cause severe internal irritation and in extreme cases in which toxicodendrol particles have been inhaled (by burning
poison ivy, oak, and sumac), swelling of the respiratory passages can even result in death. These cases require specific and immediate medical treatment.

**Control**

Controlling infestations of poison ivy, poison oak, and poison sumac plants can be tricky because contact must be avoided. It may be tempting to burn a patch that intrudes in a backyard, but under no circumstances should you burn these poisonous plants. Burning will cause toxicodendrol particles to become airborne in the smoke, and inhalation may cause severe swelling of the esophagus and respiratory passages, resulting in difficulty breathing and potentially death. Likewise, trimming or mowing patches or vines can cause particles of the allergen to become airborne. The safest way to control these poisonous plants in your backyard is using an herbicide spray. Effective herbicides containing glyphosate and triclopyr can be found in the gardening section of most general stores. Follow instructions on the packaging, and be patient. Several applications may be necessary to kill these hardy plants.

Additional information about which sprays to use may be available from your county Extension office.

If it becomes necessary to cut the vines, keep in mind that severing the vines may also release airborne particles of toxicodendrol. The utmost care should be taken that no particles are inhaled. When cutting a vine, wear protective clothing (long sleeves, pants, and closed-toed shoes) and a dust mask. Try not to sever these vines on a windy day, as this will increase the likelihood of allergens being spread. It is also best to do this in the winter, when sap is less abundant in the plant tissue. If unsure or uncomfortable with managing the problem, it may be best to hire a professional to control these poisonous plants.

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**Figure 6.** Poison sumac. Note the red stem and leaf stalks and paired leaflets with a single leaflet at the tip. (Photo credit: James H. Miller and Ted Bodner, Southern Weed Science Society, Bugwood.org)

**Figure 7.** Poison sumac bark. This plant can reach up to 20 feet tall. (Photo credit: Keith Kanoti, Maine Forest Service, Bugwood.org)
Figure 8. Immature poison sumac fruits. (Photo credit: Troy Evans, Great Smoky Mountains National Park, Bugwood.org)

Figure 9. Virginia creeper. Note the five leaflets.

Figure 10. Box elder. Note the opposite arrangement of the leaves on the stem. (Photo credit: Nancy Loewenstein)

Figure 11. Climbing hydrangea. Note the simple leaves arranged opposite each other along the hairy vines. (Photo credit: Nancy Loewenstein)
Figure 12. Fragrant sumac. Note the red fruits. (Photo credit: Jerry A. Payne, USDA Agricultural Research Service, Bugwood.org)

Figure 13. Smooth sumac. Note the red fruits and teeth along the leaflet edges.

Figure 14. Winged sumac. Note the leafy wings along the leaf stalk. (Photo credit: Nancy Loewenstein)
Conclusion

Poison ivy, poison oak, and poison sumac are common species of poisonous plants found in Alabama. Recognizing these plants and taking a few precautions may help people avoid an itchy experience, and steps can be taken to control the spread of these poisonous plants in yards. Intentionally practicing habits of control and caution can help reduce the risk of an unfortunate encounter.