



MOHAWK COUNCIL OF KANESATAKE

TOXIC PLANTS IDENTIFICATION AND EXPOSURE PREVENTION BOOKLET

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2. PURPOSE OF THE BOOKLET

This booklet has been prepared by the Mohawk Council of Kanesatake as an addition to the MCK Occupational Health & Safety policy and is meant to provide information on toxic plants that employees working outside may observe. It also contains information on prevention, symptoms, treatments and tips to identify poisonous plants.

It is important to remind MCK's employees to remain precautionous at all times when dealing with poisonous plants and avoid any action that may cause health issues. When not sure of the identification of a plant, it is always better to postpone the work accomplished to analyse the situation.

3. GIANT HOGWEED

Description

Giant hogweed (*Heracleum mantegazzianum*) is a highly invasive and potentially harmful plant species that belongs to the carrot family (Apiaceae). Native to the Caucasus region of Central Asia, it has spread to many parts of Europe, North America, and other regions. The plant is characterized by its towering height, large compound leaves, and white umbrella-shaped flower clusters.

Key features of giant hogweed include:

Height: Giant hogweed is known for its impressive height, often reaching up to 15 feet (4.5 meters) or more. The tall, robust stems are green with purple blotches and coarse white hairs.

Leaves: The plant has deeply lobed, compound leaves that can span a considerable width. Each leaf can have several leaflets, and the overall appearance is similar to a large, tropical-looking leaf.

Flowers: Giant hogweed produces umbrella-shaped clusters of small, white flowers that can measure up to 2.5 feet (75 cm) in diameter. The flowering typically occurs in late spring to early summer.

Stems: The stems of giant hogweed are hollow and have purple blotches. The plant's sap contains toxic chemicals known as furanocoumarins, which can cause severe skin reactions when exposed to sunlight.

Toxic Sap: The sap of giant hogweed contains phototoxic substances that can cause phytophotodermatitis. This condition occurs when the skin comes into contact with the sap, followed by exposure to sunlight. This can lead to severe burns, blistering, and long-lasting scars.

Due to its potential health hazards and its ability to outcompete native vegetation, giant hogweed is considered an invasive species, and efforts are made to control its spread in affected regions. It is important to exercise caution and take appropriate safety measures when dealing with giant hogweed to avoid skin contact with the sap. If you suspect exposure, seek medical attention promptly.

Similar species

Cow parsnip is a native plant in North America and is related to giant hogweed, belonging to the same genus *Heracleum*. However, cow parsnip is generally smaller in size compared to giant hogweed. It typically grows to a height of 3 to 8 feet and lacks the extreme height reached by giant hogweed. Cow parsnip also has large, lobed leaves and produces umbrella-shaped clusters of white

flowers. While cow parsnip may cause skin irritation for some individuals, it is not as potent as giant hogweed. It is important to keep in mind that both species are similar and when in doubts, additional prevention methods should be taken.

Procedure to neutralize

1. **Identification:** Ensure you correctly identify the plant as giant hogweed before attempting any removal. If you're unsure, seek assistance from local experts or authorities.
2. **Use appropriate safety equipment:** Wear protective clothing, including gloves, long sleeves, and pants, to minimize skin exposure. Use eye protection to prevent sap from coming into contact with your eyes.
3. **Choose the right season:** Ideally, choose a time for removal when the plant is not flowering or producing seeds to prevent further spread. It's often recommended to tackle removal in the early spring or late fall.
4. **Cutting and disposing:** Use a sharp, clean tool to cut the giant hogweed stems. Cut the plant as close to the ground as possible. Then, cut plants below the ground level and remove as much of the taproot as possible to discourage re-growth.

Immediately place cut stems and any plant parts in heavy-duty plastic bags to prevent the spread of seeds. Double-bag the materials to reduce the risk of the bag tearing.

5. **Decontamination:** After handling giant hogweed, carefully remove and wash your clothing. Be cautious not to transfer sap to other parts of your body. Wash any exposed skin with soap and water immediately.

In some cases, especially if the infestation is large or in challenging terrain, consider seeking professional assistance for removal. Professional assistance is also required when the situation requires the use of chemicals such as glyphosate (*Round-up*).

It is suggested to monitor the area for regrowth and promptly address any new giant hogweed plants to prevent the spread.

Exposure symptoms

When exposed, someone may have the following symptoms: blistering, skin redness, severe itching, swelling, pain and burning sensations.

The reaction is triggered by exposure to sunlight (phototoxicity). This means that symptoms are more likely to occur in areas of the skin that have been exposed to sunlight shortly after contact with giant hogweed sap.

Exposure treatments

Wash the Affected Area: Wash the skin thoroughly with soap and water as soon as possible to remove the plant's sap. Do this in a shaded area to avoid sunlight exposure.

Avoid Sunlight: Keep the affected area covered to protect it from sunlight for at least 48 hours.

Seek Medical Attention: If the reaction is severe, involves a large area of the body, or affects sensitive areas such as the face or eyes, seek medical attention promptly.

Avoid Scratching: Avoid scratching the affected area, as this can worsen the condition and increase the risk of infection.

If you believe you have come into contact with giant hogweed or are uncertain about the plant's identification, it's advisable to seek medical advice. Phytophotodermatitis reactions can be serious, and prompt attention is essential for proper management.

Photos



Giant Hogweed Flower

Source : <https://www.invasivespeciescentre.ca/invasive-species/meet-the-species/invasive-plants/giant-hogweed/>



Giant Hogweed Leaves

Source : <https://tualatinswcd.org/species/giant-hogweed/>



Giant Hogweed (full plant)

Source : <https://www.countryliving.com/gardening/garden-ideas/a44866528/what-is-giant-hogweed/>

4. POISON IVY

Description

Toxicodendron pubescens, commonly known as Eastern poison ivy, is a plant found in North America that can cause allergic reactions in many people due to its urushiol content. Identifying Eastern poison ivy is crucial to avoid contact and the subsequent skin irritation. Here are key features to help you identify *Toxicodendron pubescens*:

Leaves: Poison ivy typically has three leaflets. The leaves are arranged alternately on the stem.

The leaflets are usually smooth-edged and may have a shiny appearance. However, the edges can sometimes be irregular or toothed.

Each leaflet is generally oval or somewhat elongated, and the lateral leaflets may be asymmetrical.

Leaf Color: The color of the leaves can vary depending on the season and environmental conditions. Leaves can be green in the spring and summer, turning red or orange in the fall.

Leaf Surface: The upper surface of the leaves is often smooth and glossy, while the lower surface may have fine hairs, giving it a slightly hairy or pubescent appearance.

Leaf Arrangement: Poison ivy leaves are arranged alternately along the stem, and each leaf has three leaflets.

Growth Habit: Eastern poison ivy can grow as a low shrub, a climbing vine, or a trailing groundcover. In vine form, it often attaches itself to trees, fences, or other structures using aerial rootlets.

Clusters of Berries: In late summer or fall, poison ivy may produce small, whitish berries in clusters. However, not all plants will have berries.

Habitat: Poison ivy is commonly found in wooded areas, along trails, and in open fields. It can also thrive in urban environments and along the edges of roads.

Be aware that variations in leaf shape can occur, and the appearance of the plant may change based on environmental conditions.

Similar species

Eastern poison ivy has many similar species. As a basic rule of thumb, Eastern poison ivy can be easily identified by its three leaflets per leaf.

Boxelder (*Acer negundo*)

Boxelder is a deciduous tree or shrub with compound leaves that can resemble poison ivy. However, boxelder leaves usually have five leaflets instead of three.

Virginia Creeper (*Parthenocissus quinquefolia*)

Virginia creeper is a climbing vine with five leaflets that can be mistaken for poison ivy. However, the leaflets of Virginia creeper are more serrated than those of poison ivy.

Hog Peanut (*Amphicarpaea bracteata*)

Hog peanut is a vining plant with three leaflets, similar to poison ivy. However, the arrangement of the leaflets and the overall appearance are different.

Fragrant Sumac (*Rhus aromatica*)

Fragrant sumac is a shrub with three-part leaves that may resemble poison ivy. The leaves, however, are usually aromatic when crushed, giving off a citrus-like fragrance.

Blackberry and Raspberry Plants (*Rubus* spp.)

Some blackberry and raspberry plants have three leaflets and can be confused with poison ivy. However, these plants typically have thorns, which poison ivy lacks.

Boxwood (*Buxus* spp.)

Boxwood is a common landscaping shrub with small, opposite leaves. While it doesn't have the classic three-leaflet arrangement, its dense growth pattern may lead to confusion from a distance.

Procedure to neutralize

1. **Identify the Plant:** Make sure you correctly identify poison ivy before attempting removal. Poison ivy typically has three leaflets per leaf, and it can be a vine or a shrub.
2. **Wear Protective Gear:** Put on protective clothing, including long sleeves, pants, gloves, and closed shoes. Consider using disposable coveralls for added protection.
3. **Tools and Equipment:** Gather tools such as pruning shears, loppers, or a saw for cutting the plants. Use long-handled tools to maintain a safe distance. Get heavy-duty plastic bags for disposal.
4. **Timing:** Choose a time for removal when the plants are actively growing, typically in the spring or early summer. Avoid removing poison ivy on windy days to minimize the risk of inhaling urushiol.
5. **Cutting the Plants:** Cut the poison ivy plants at ground level using pruning shears, loppers, or a saw. Double-bag the cut plant material immediately to prevent the spread of urushiol.

6. **Root Removal:** If possible, dig out the roots to prevent regrowth. Wear gloves and use a shovel to carefully remove the entire root system.
7. **Herbicides (Optional):** Consider using an herbicide labeled for poison ivy control. Apply the herbicide according to the product instructions.
Herbicides containing glyphosate or triclopyr are often effective. Follow safety guidelines and local regulations.
8. **Disposal:** Dispose of the bagged poison ivy plants in accordance with local regulations. Some areas may have specific disposal requirements for toxic plants.
9. **Clean Tools:** Clean tools and equipment thoroughly with rubbing alcohol or soapy water to remove any potential traces of urushiol.
10. **Protective Measures:** After removal, remove and wash your protective clothing immediately, and wash your hands and exposed skin thoroughly.
11. **Monitor and Repeat:** Monitor the area for regrowth, and repeat the removal process as needed. Poison ivy can be persistent, and multiple removal attempts may be necessary.
12. **Professional Assistance (Optional):** If the poison ivy is widespread, in a challenging location, or if you're not comfortable handling it, consider hiring a professional for removal.

Exposure symptoms

When exposed, someone may have the following symptoms: The symptoms of poison ivy exposure typically appear within 12 to 48 hours after coming into contact with the plant's sap (urushiol). Common symptoms include: Redness, itching, swelling, blistering, rash formation, warmth and tenderness.

It's important to note that the severity of the reaction can vary among individuals. Some people may have a mild reaction, while others may experience more pronounced symptoms. Additionally, repeated exposure to poison ivy can sensitize the immune system, leading to more severe reactions with subsequent exposures.

Exposure treatments

Wash the Affected Area: Rinse the skin with cold water and soap as soon as possible to remove the urushiol-containing sap. This can help prevent or minimize the severity of the reaction.

Avoid Scratching: Although itching can be intense, scratching the affected area should be avoided to prevent further irritation and potential infection.

Cool Compresses: Applying cool compresses to the affected area can help alleviate itching and reduce inflammation.

Over-the-Counter Remedies: Over-the-counter creams, lotions, or calamine lotion may provide relief from itching. Follow the product's instructions and consult with a healthcare professional if needed.

Oral Antihistamines: Taking oral antihistamines, as directed by a healthcare professional, can help relieve itching and reduce allergic reactions.

If the symptoms are severe, cover a large area of the body, involve sensitive areas like the face or genitals, or if there is difficulty breathing, seek immediate medical attention. A healthcare professional may recommend additional treatment options, including prescription medications, in such cases.

Photos



Eastern Poison Ivy leaves

Source : <https://plants.ces.ncsu.edu/plants/toxicodendron-radicans/>



Poison Ivy flowers

Source : <https://www.everydayhealth.com/poison-ivy/what-does-poison-ivy-look-like/>



Poison Ivy (full plant)

Source : <https://learningherbs.com/remedies-recipes/poison-ivy-remedy/>

5. POISON SUMAC

Description

Poison sumac (*Toxicodendron vernix*) is a toxic plant found in wet, swampy areas, such as in the eastern United States and Canada. It's less common than poison ivy or poison oak but can cause a severe allergic skin reaction upon contact. Identifying poison sumac correctly is crucial to avoid exposure. Here's how to identify it:

Habitat: Poison sumac typically grows in very wet areas, such as swamps, wetlands, and along riverbanks. It's more likely to be found in these habitats than in dry, upland areas.

Growth Form: It can grow as a small tree or large shrub, reaching up to 20 feet (6 meters) in height in some cases.

Leaves: The leaves of poison sumac are compound and alternate along the stem, with 7 to 13 leaflets per leaf. Leaflets are smooth-edged (not toothed or lobed) and have a pointed tip. The leaves are arranged in pairs along the central stem with a single leaflet at the end. In the spring and summer, the leaves are green, turning vibrant red, orange, or yellow in the fall.

Stems and Branches: The stems are red and smooth, which can be a distinguishing feature, especially in the spring and early summer.

Flowers and Berries: Poison sumac produces small, greenish-yellow flowers in loose clusters. It bears fruit in the form of small, white or gray berries that hang in loose clusters. These berries are a key distinguishing feature, as they are not red like those of some non-toxic sumacs.

Toxic Component: Like poison ivy and poison oak, poison sumac contains urushiol, a clear, oily substance that can cause an allergic reaction on the skin.

Similar species

Similar species to poison sumac, especially in terms of appearance, can sometimes lead to confusion. However, it's important to distinguish between them because poison sumac (*Toxicodendron vernix*) is toxic, whereas many similar-looking species are not. Here are a few plants that are often confused with poison sumac:

Staghorn Sumac (*Rhus typhina*):

Easily distinguished by its velvety, antler-like branches and large, conical clusters of red berries that stand upright. Unlike poison sumac, staghorn sumac has red berries and is not toxic.

Smooth Sumac (*Rhus glabra*):

Similar to staghorn sumac but lacks the hairy stems. It also has upright clusters of red berries and is not toxic.

Winged Sumac (*Rhus copallinum*):

Named for the wing-like ridges along its branches, winged sumac has clusters of red berries similar to the other non-toxic sumacs and is not poisonous.

Ash Trees (*Fraxinus* spp.):

Young ash trees might be confused with poison sumac because of their compound leaves. However, ash trees have opposite branching, whereas poison sumac has alternate branching. Ash trees do not contain urushiol and are not toxic.

Elderberry (*Sambucus* spp.):

Elderberry plants have compound leaves somewhat similar to poison sumac and produce clusters of dark purple berries. Elderberries are edible when properly prepared, unlike the toxic berries of poison sumac.

Virginia Creeper (*Parthenocissus quinquefolia*):

Although not a similar species in terms of leaf structure (since it has five leaflets per leaf), Virginia creeper is often mistaken for a poison ivy or sumac due to its climbing habit and red fall color. It does not contain urushiol but has oxalic acid, which can irritate the skin for some people.

Procedure to neutralize

1. **Identify the Plant:** Ensure you correctly identify poison sumac. It typically has compound leaves with 7-13 leaflets and grows in wet, swampy areas. It has red stems and produces white or grayish berries.
2. **Wear Protective Gear:** Use long sleeves, pants, gloves, and a mask to avoid contact with the plant and its oils.
3. **Tools and Equipment:** Use tools such as loppers or pruning shears to handle the plant instead of using your hands.
4. **Cutting the Plants:** Cut the poison sumac plants at the base using pruning tools. Be cautious to avoid brushing against the plant.
5. **Dispose Properly:** Place the cuttings in heavy-duty plastic bags. Seal the bags tightly and dispose of them according to local regulations.
6. **Clear the area and wash your tools:** After removing the plant, rake the area to gather any fallen leaves or branches. Place debris in plastic bags and dispose of them properly. Wash any tools used with soap and water or a specialized cleaning solution to remove any plant oils.

7. **Protective Measures:** After removal, remove and wash your protective clothing immediately, and wash your hands and exposed skin thoroughly.
8. **Monitor and Repeat:** Monitor the area for regrowth, and repeat the removal process as needed. Poison sumac can be persistent, and multiple removal attempts may be necessary.
9. **Professional Assistance** (Optional): If the poison sumac is widespread, in a challenging location, or if you're not comfortable handling it, consider hiring a professional for removal.

Correctly identifying and avoiding poison sumac is the best way to prevent an allergic reaction. If you're unsure about a plant's identification, it's safest to avoid touching it and consult a local expert or field guide.

Safety precautions

If you're in an area where poison sumac is common, wear protective clothing, including long sleeves and pants, to minimize skin exposure.

Be cautious when handling plants in wet, swampy areas, especially if you're unsure whether poison sumac is present.

Exposure symptoms

The allergic reaction to poison sumac is similar to that caused by poison ivy and poison oak, including itching, redness, swelling, and blisters.

Exposure treatments

If you suspect you've come into contact with poison sumac, wash the affected area with soap and water as soon as possible and consider applying over-the-counter remedies to alleviate symptoms. For severe reactions, seek medical attention.

Photos



Poison Sumac leaves

Source : <https://www.dot.ny.gov/dangerous-plants/poison-sumac>



2015 © Peter M. Dziuk

Poison Sumac flowers

Source : <https://www.minnesotawildflowers.info/shrub/poison-sumac>



Poison Sumac (full plant)

Source : http://minnesotaseasons.com/Plants/poison_sumac.html