3000 ppm IBA rooting powder. Cuttings were struck with at least 2 nodes below the surface of rooting medium (1:1 v:v perlite:sand) in an outdoor mistbed with bottom heat maintained at 22 °C [72 °F]. All cuttings rooted in 8 wk and were potted into 3-l (1-gal) containers containing the same medium, Osmocote, and Micromax fertilizer described above, but at the rate of 4 g (0.14 oz) of Osmocote and 2 g of Micromax per container. Cuttings are grown in the shade house for the remainder of the growing season. Cuttings produce firm root systems in 1 to 1.5 y (Hosokawa and others 2001).

REFERENCES

PROPAGATION PROTOCOL FOR POISON OAK (TOXICODENDRON DIVERSILOBUM)

KEY WORDS: Anacardiaceae, seed germination, vegetative propagation, revegetation

NOMENCLATURE: USDA NRCS (1999)

"Why in the world would anyone grow THAT?" is the most common question we hear when someone walks by a healthy crop of poison oak (Toxicodendron diversilobum (Torr. & Gray) Greene [Anacardiaceae]) in containers at our nursery. Hopefully, they didn’t step too close as to have brushed against the plants. If they were wearing shorts on a summer day, they might leave Tree of Life Nursery in good shape, but in a couple days they would remember us with an irritating rash on their legs, and their itch might last more than a week.

Poison oak is an important member of many plant communities in the west from Baja California to British Columb
Poison oak is easy to grow from cuttings but we take extreme precautions (Figure 1). By cutting into the stem and exposing the sap, there is a high probability the propagator will get a case of “poison oak” unless they wear protective gear, including a respirator on hot days. If inhaled for a prolonged period, the volatile oils can affect the sensitive areas of the mouth, throat, and lungs. Most firefighters in the west are familiar with the dangers in breathing the smoke of burning poison oak.

With extreme care, we take softwood or semi-hardwood cuttings throughout the year. Of course, the most “convenient” time to do this would be the dormant winter season when the plants are leafless, but handling the stems can still result in skin irritation. The most successful stem cuttings are about 5 cm (2 in) long and 3 to 9 mm (0.125 to 0.375 in) in caliper. If cuttings are taken during the active growing season, we remove or trim leaves to reduce transpiration during the rooting period. We stick the cuttings with 1 or 2 nodes in the coarse rooting medium (3:3:3:1 [volume basis] coarse sand, perlite, vermiculite, and sphagnum peat moss). Cutting flats are placed in a humid, cool, greenhouse environment. We experience relatively high humidity levels being only 16 km (10 miles) from the Pacific Ocean so periodic sprinkling (a few times each day depending on weather) of the cuttings is sufficient. Too much misting results in stem rot. Roots form in 4 to 6 wk and the rooted cuttings can be transplanted into small pots.

Both our 2-mo-old seedlings and 4- to 6-wk-old rooted cuttings are transplanted into small containers. We use either 250 ml (2.25 in wide X 3 in deep) or 1050 ml (4 in) containers filled with a 4:1 organic:inorganic (v:v) medium. The organic component is a 1:2 (v:v) mixture of barkwood shavings and sawdust. The wood components include redwood (Sequoia sempervirens [Lamb. ex D. Don] Endl. [Taxodiaceae]), ponderosa pine (Pinus ponderosa P. & C. Lawson var. ponderosa [Pinaceae]), and white fir (Abies concolor [Gord. & Glend.] Lindl. ex. Hildebr. [Pinaceae]). The inorganic component is coarse sand. We also add Osmocote 18N:6P2O5:12K2O (9 mo release rate at 21 °C (70 °F) at a rate of about 2.7 kg/m³ (4.5 lb/yd³)) and inoculum of the vesicular arbuscular mycorrhiza Glomus intraradices via Grolife (Gro-Power, Chino, California) at a rate of 6 kg/m³ (10 lb/yard³). Plants generally stay in these containers a couple of months before being transplanted up to 3-l (1-gal) containers that are filled with the same medium and fertilizer. Poison oak in nursery containers prefers light shade and plenty of water. It is a rapid grower and we have saleable plants in 6 to 9 mo.

Certainly poison oak is not an appropriate choice for any use other than wildlife habitat in ecological restoration projects. However, if it is omitted at a revegetation jobsite within its native range, an essential component of the plant community will be missing. Native plant nurseries can play an important role by producing all the key plant species needed for habitat restoration... even those we consider “less desirable” from our human perspective.

REFERENCE


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