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Oriental Bittersweet is an Invasive Pest

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In New England there are two types of bittersweet vines, which are similar in appearance, that can be found; one being the native American bittersweet (*Celastrus scandens*); and the other being the invasive Oriental bittersweet (*Celastrus orbiculatus*). The key differences are that the native bittersweet has oval shaped leaves and the flowers and fruits both occur at the tips of the stems; while the non-native Oriental bittersweet has rounded leaves that are glossy, finely toothed and arranged alternately along the stem, and the flowers and fruits occur in the axils along the length of the vine.

In early autumn the foliage of Oriental bittersweet turns a vivid yellow and the greenish-yellow outer layer of the fruits begin to split and open to reveal three reddish-orange, fleshy arils, each containing two seeds. It's these showy fruits that have made oriental bittersweet very popular for use in floral arrangements, decorations and wreaths. But soon after the colors start to fade and the season changes to winter the bittersweet decorations are disposed of by tossing them into the woods, gardens or compost piles. This method of disposal has led to backyards and woodlands becoming invaded from the seeds contained in those once beautifully ornate fruits, which sprout into many new plants.

Oriental bittersweet is native to eastern Asia, Korea, China and Japan. It was introduced to the United States in the mid 1730s for ornamental purposes. It is a woody vine with rounded leaves that produces clusters of small greenish flowers in spring. Flowers and fruits occur where the leaves meet the stems. Seeds are spread primarily by birds and other types of wildlife that eat and disperse the fruits.

The problem with Oriental bittersweet is that it produces many seeds, spreads rapidly, and adapts to most environments making it one of the most highly invasive species in New England. It can smother native woody species by growing up and over them depriving them of adequate sunlight, and ultimately the native plant dies and collapses under the massive weight of the vines. The bittersweet stems twine themselves around tree trunks, and as they get bigger they can girdle the bark, which also kills the trees. Ground level plants such as smaller woody or herbaceous plants are also impacted and killed by the blanketing of the vine as it spreads across the ground. For these reasons Oriental bittersweet is listed as a Prohibited Invasive Species in New Hampshire and it is unlawful for it to be sold, transported, or used in anyway that will allow it to spread.

Alternatives to Oriental bittersweet for fall decorations include American bittersweet, red berries of holly, red fruits of Winterberry, grayish berries of cedar, or local floral and craft stores usually have a supply of faux bittersweet available in bulk or already formed into wreaths. Whatever you select make sure it is not Oriental bittersweet.

Control of Oriental bittersweet is not always easy, but there are a few approaches that have been effective. If there are only a few small plants they can be hand pulled, before fruiting, along with their roots. If fruits are present, all bittersweet removed should be bagged and disposed of in a landfill or incinerator, or left in the bags out in the sun long enough to kill the seeds. Larger vines can be treated with an application of an appropriate herbicide making sure to follow all directions on the label.

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