

**Vinecutter  
Summary of Experience  
January 1, 2009**

**Introduction**

In 2003 we began an organized effort to control Oriental Bittersweet *Celastrus orbiculatus* along the Bronx River Parkway Reservation between the southern Westchester County line and the northern Kensico Dam.

The goals are:

1. Remove vines from signature trees along the 17 mile stretch from the Westchester County line on the south to Kensico Dam on the north.
2. Provide information, encouragement, and resources to other efforts in other locations.

The Westchester County Parks Department holds bi-weekly training sessions between November and April. The program has trained at least 400 volunteers. The schedule can be found at <http://www.vinecutter.com/schedule.htm>.

The program is encouraged by the Bronx River Parkway Reservation Conservancy. Jim Sutton is executive director.

**The good news**

Oriental Bittersweet can be controlled and, in many cases eradicated by hand over one to five years with the mean being two to three years.

It does not grow back very well. It is not nearly as virulent as porcelain berry or grape (for example).

It is best cut between November and April when the leaves are off the trees.

**High/Low Method**

By far the most effective method is to cut vines low to the ground and above eye level. We call this the "high/low" method.

- Vines cut low to the ground do not send up numerous root suckers. I personally have never seen this happen.
- Vines cut low to the ground appear to be starved for light, do not send up new tendrils as often and more often die.
- We cut high because vines that are left hanging provide a convenient ladder for new tendrils of all kinds.
  - We will return to find the vine is now a climbing pole, not only for bittersweet, but also for multiflora rose, porcelain berry, grape, and honeysuckle.
- We also cut high so that other vinecutters can see the area that has been worked more easily. It's a little heartbreaking to fight your way through a rose bush only to find that the vine has already been (invisibly) cut.
- A badly infested tree looks "bearded" when it has been rescued. The technique is very effective.

## Thigh-Level Method

Vines cut at thigh-level that have sunlight will develop new tendrils about 70% of the time.

- The tendrils grow from the cut end (perhaps 2 to 6 of them), but also from the vine further down. They are quite vigorous.

## Mortality

Our rule of thumb is that vines cut using the high/low method die about 50% of the time. A patch can be completely eradicated in as little as 1 year. It usually takes three years. In only a few cases has it taken the full five years.

- It's very important not to provide "ladders" for new growth.

## Trees vs. Thickets vs. Ground Cover

Eradicating *Celastrus* from trees is the easiest task because it is visible and usually easy to get to. Once you "beard" the tree you can see new growth in following years and deal with it quickly and effectively.

Bearding cuts a mass of vines at head level and at ground level to create a completely vine free zone around the trunk.

Eradicating *Celastrus* from thickets is tough because you really have to take out the whole thicket which may also contain porcelain berry, multiflora rose, honeysuckle, grape and virginia creeper. The thicket may also be home to many critters and birds so check with Audubon and local keepers before removing it.

- Thickets really need a trained eye in supervision. We barely rescued a nice spice bush from the hands of a volunteer. We lost an 80 year old bladder nut grove to a maintenance crew. These are not always seen as valuable specimens but were clearly planted as part of the planting plan for the Reservation and had achieved some local interest.

*Celastrus* as ground cover looks impossible but is actually quite doable if you take it slowly. Usually there is an extensive network of roots.

- We wander through the ground cover each year snipping at targets of opportunity. They almost always die.
- Next year the field is much clearer. Snip again but don't try to be absolutely perfect.
- The third year the few remaining plants are easy to see and eradicate.
- We cleared an impossible looking patch this way. Low, soggy ground may have contributed to our success.

Literature suggests that cutting encourages the growth of root suckers. We strongly disagree.

## Poison

We have very little experience with poisons.

## Things to Avoid

### Poison Ivy.

The County Parks Department makes a special effort to train volunteers to recognize poison ivy vines and branches.

### Never Cut Anything Growing on the Bark

*Celastrus* almost always hangs free or coils in a characteristic way. We never cut anything that grows vertically, attached to the tree. It may just be English Ivy, but it could also be Poison Ivy.

### Never Cut flattened vines

*Celastrus* is almost always round with obvious lenticels. We've avoided cutting several wonderful examples of domestic Wisteria.

## Safety

Wear safety glasses, gloves, boots and sturdy clothing. Exercise common sense. People with strong reactions to poison ivy should not cut.

Work only under supervision of the Westchester County Parks Department and/or other relevant government agencies.

## Core Hypothesis

- Low-cut *Celastrus* does not produce root suckers. In ten years we've never seen this happen. There may be suckers present, but cutting itself does not seem to create them.
- Ground level cutting of *Celastrus* produces by a higher kill ratio than calf-level or thigh-level cutting.
- High/Low cutting is more effective than low-cutting alone because it offers fewer vertical pathways for new growth.
- Chalf-high or thigh-high cutting of *Celastrus* is most likely to produce vigorous tendrils
- Pulling *Celastrus* roots on new shoots provides new ground for the next invasive and is generally no more effective than low-cutting.
- *Celastrus* craves sunlight and therefore is most prevalent on the edges of cleared areas such as highways, train tracks, paths, and rivers.
- High/Low cutting kills 50% to 80% of growth per year.
- Citizen/Voter awareness of the problem is extremely high relative to other invasive plants.

### **Misconceptions and Observations**

- Low-cut *Celastrus* does not produce root suckers. In ten years I've never seen this happen. There may be suckers present, but cutting itself does not seem to create them.
- Low-cut *Celastrus* produces by far the highest kill ratio.
- High-cut *Celastrus* is most likely to live and produce vigorous tendrils
- Pulling *Celastrus* roots on new shoots may be effective but provides new ground for the next invasive.
- Cutting *Celastrus* shoots near the ground almost always kills them.

**Photos** and additional information is available at [www.vinecutter.com](http://www.vinecutter.com)