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Dear Senator Meyer, Representative Gentile and members of the Environment Committee,

As requested, I have put together some information regarding containment, eradication, and concerns regarding bamboo. The following two pages are a summary and I have provided more detailed information in the supporting documents.

I also felt it was necessary to rebut some of the testimony I heard in regards to one of our customers. It was mentioned that a garden center in Ledyard has a planting with Phyllostachys and that even though they are professionals they can't keep it under control. I knew this to be a reference to Holdridge Farm so I called them to get their comment. I spoke with Angie Wickerd. She had trouble imagining where I could mean because the only bamboo she knew of was screening their mulch pile and it wasn't a problem at all. I have included her email explaining this and photos to show that the bamboo is not an issue, but is helping the grasses screen out their ugly mulch bags.

I still say, before any changes are made, a group with representation from the CT Agricultural Experiment Station, DEEP, legislators, municipal enforcement officials, and the nursery and landscape industry should look at the facts and come up with a more equitable law.

Thank you for your time and consideration of this information. If you would like any further information or explanation please don't hesitate to contact me.

Sincerely,

Holly Johnson  
Vice-President

# Eradication of the bamboo genus *Phyllostachys*

There are several ways to either eliminate an existing grove of bamboo or kill off just a portion of a grove.

## Elimination of an existing grove:

### 1. Use of herbicide.

At our nursery we successfully killed a *Phyllostachys* planting 30' x 100' in size. A year later we also killed an off-shoot of a grove that was approximately 10' x 20'.

This was done with the use of glyphosate (commonly referred to as Round Up). Even though bamboo is a grass, the stronger rate for killing brush is needed. This is a rate of 2% or 2.5 oz to a gallon of water.

A double application is also best. The first application should be in late July followed approximately two weeks later in mid August. The timing is important because glyphosate is a systemic herbicide, which means the chemical is translocated from the leaves to the roots. Bamboo begins taking energy from the leaves to the roots in late July. Applications prior to this time are inefficient and a waste of chemical. If you wait too long into August translocation is slowing down and will not be nearly as effective.

The following spring the large grove had one weak shoot emerge, but it was removed and did not come back. The off-shoot area had 100% die back while leaving the primary planting unharmed. We then reseeded the area and it is now just grass.

This is a standard practice for people who work with bamboo. There are several variations to this theme based on the size of the grove and surrounding area.

### 2. Mowing or cutting back

This method works by starving the roots of the grove. To quote Ted Meredith in his book *Bamboo for Gardens* – “Bamboo can be also eliminated by cutting away all culms and breaking off any new shoots before they leaf out. Because a bamboo plant must have leaves to nourish itself and store energy in the rhizomes, depriving it of this source of food will exhaust the rhizome’s energy reserves, causing it to wither and die.”

Unfortunately this method doesn’t work if you can’t cut back the entire grove. You can use this method when a grove moves into a neighbor’s property only if a barrier is used to separate it into two groves.

Jeff Ward of the CT Agricultural Experiment Station will have results this June from experiments on eradicating bamboo that he performed at 4 locations in Connecticut last summer. His information will help inform the public in proper methods to kill off unwanted bamboo.

## Containment of the bamboo genus Phyllostachys

There are several methods of containment for Phyllostachys. The site of the planting, and function of the bamboo, is important in deciding what type of containment to use.

The most recommended method is to use a rhizome barrier. This is usually a high density polyethylene barrier that is a minimum 60 mil thick. Phyllostachys rhizomes tend to grow in the top foot of soil, but it is recommended a 36" barrier be used with 2-3 inches remaining above the soil in case any rhizomes try to go over the top. I have included several texts with graphics showing how to install this barrier.

Another method of containment is mowing. When a new culm comes up in the spring it can be easily cut, mowed or broken to stop its growth for the season. While the rhizome underground has not been killed, the above ground growth for that season has been. Bamboo only sprouts in the spring, so there will not be continued culm activity into the summer if it is cut down in the spring. This method can also be used for height containment as a culm will maintain the height at which it is topped and will not try to resprout as we see with our garden shrubs that we regularly prune.

Containers are very often used as a means of keeping Phyllostachys under control. Bamboo is used quite often in urban areas where it is planted in above ground containers but this method easily translates to a homeowner's property. Attention must be paid to any drainage holes to make sure rhizomes are not escaping the container.

There are many natural barriers that will contain bamboo. Water is a natural barrier for almost all varieties of Phyllostachys. Hard packed soils are also a barrier. Rhizomes and culms have trouble penetrating these soils especially if they are packed due to either foot or vehicle traffic. Proper understanding of the site is necessary since using a natural barrier is not a foolproof containment and is not recommended for contested locations.

I have provided several articles that support this summary. Some groups may support mechanical means for maintenance and removal, while others see herbicides and mechanical means both as valid options. When it comes to chemicals it is quite often a personal choice to refrain from their use even when shown to be successful.

Another note on the damage it is supposedly causing to gas mains, water lines, and septic systems. Generally speaking, Phyllostachys rhizomes grow no deeper than 12" +/- from the surface. Knowing the code for gas line, water line, and septic system depths it is clear that tree roots would be far more of an issue than bamboo. Tree roots will grow deeper and increase in diameter annually while bamboo prefers to stay shallow and the rhizomes will not get wider, only longer.