

## Herbicide Treatment Area for Buckthorn Cut-Stump Method



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The blue paint in the photo at left indicates the target area for placement of herbicide onto the stumps of freshly cut buckthorn. The targeted cambium layer is located at the outer perimeter of the buckthorn stump. Stump treatment may be used for other undesirable woody plants such as non-native honeysuckle.

We prefer the use of 18-20% strength glyphosate herbicide for cut-stump treatment. Glyphosate is formulated by various manufacturers but is most commonly known by its original brand name Round Up Concentrate Plus.

We recommend the use of **Mark-It Blue** landscape indicator dye with your herbicide. The **Buckthorn Blaster** herbicide applicator, Mark-It Blue dye and glyphosate herbicide are available in the PRODUCTS section at [www.landscape-restoration.com](http://www.landscape-restoration.com).

## Suspending Buckthorn Herbicide Treatment in Spring

Consider suspending cut-stump treatment of buckthorn from the beginning of spring ground thaw until buckthorn is fully leafed out, approximately April to July. Here is why:

As shown in the photo above, the cambium layer is the target area for application of herbicide in cut-stump method. For most of the year, the cambium layer transports energy downward to be stored into buckthorn's root structure. In spring, the energy flow reverses as stored energy begins to travel upward for use in leaf development and plant growth. It is during this time that application of herbicide to the cambium may have **limited to no effect** until full leaf out occurs and a downward energy flow to the root structure resumes. Often a watery sap will be visible on the freshly cut stump surface. During this "off" period of cut-stump treatment consider the following two-step buckthorn removal method:

First, cut buckthorn stems high enough to leave adequate space for a second cut in the future. Stack or remove the buckthorn tops to allow more sunlight to reach the native species that would otherwise be shaded out by the buckthorn canopy. Second, return to the site at a future time when use of herbicide will again be effective to make the second cut slightly above ground level. Apply herbicide at this time to the cambium area of freshly cut stumps. Cut stems can be left on the ground to decompose, placed perpendicular to slopes to slow erosion or be mulched for ground cover.

A good use of free time during the "off" period of cut-stump buckthorn treatment is uprooting blossoming garlic mustard (*Alliaria petiolata*) plants. It is critical to prevent blossoming garlic mustard from developing seeds and accumulating a seed bank. For more information about controlling non-native invasive garlic mustard infestations refer to the garlic mustard segments in our blog at [www.landscape-restoration.com](http://www.landscape-restoration.com).



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