

Exploring the Habitat Benefits and Trade-Offs of a Slash Wall



The RI Forest Conservator's Organization (RIFCO), an NWOA state affiliate, recently installed southern New England's first slash wall at the Merriman Demonstration Woodlot on Howard Hill Road in Foster, RI. It may be the first slash wall installed outside of Cornell University's Arnot Forest in upstate New York.

On August 6th, 2020 RIFCO conducted its Summer Twilight Walk at the site, and the RI Chapter of the Society of American Foresters (RI SAF) held a workshop for foresters and Woods Operators. Dr. Jeff Ward from the CT Ag. Experiment Station (CAES) and Dr. Peter Smallidge of Cornell University were on-hand to provide an overview of the future of our oak forests and how these slash walls can help with its regeneration.

The slash wall was installed within a 3-acre habitat clearing. The habitat clearing retained several oaks

and hickory trees, as well as a couple of standing dead snags. The habitat clearing project was cost-shared through a contract with the USDA-NRCS and its EQIP program. Our development of a slash wall is a small project, covering less than half of our 3-acre clearing area.

The wall is built with an opening at one end of the slash wall, with an 8' tall wire fence "gate" across the opening to allow us to observe the effectiveness of the slash wall over time.

In order to build the slash wall, all of the cut material from the 3-acre clearing, minus any merchantable sawlogs and some straighter sticks of firewood material, was utilized to construct the slash wall. This left a debris-free site throughout the 3 acres, with all the slash now in the wall, which measures about 8 feet in height and 10 to 15 feet in width. That means our habitat clearing is much cleaner than it typically would be. Leaving woody debris and tree-tops (slash) scattered on site would have its own habitat and environmental benefits.

The habitat clearing and slash wall construction was done by certified Master Logger Bob Thurber and Jonathan Ponte of Jerimoth Forestry. Equipment utilized included a CAT 320 excavator machine with a processing head on the arm that allows him to pick up whole trees and cut them to desired lengths, stacking logs at the landing and, as in this case, building a slash wall. A grapple skidder was utilized to pull all of the felled trees from the 3-acre clearing to the processor, with the wall encircling about half of the clearing area.

According to Bob and the experiences at Cornell University's Arnot Forest, a feller-buncher machine that directly cuts and drops trees into the slash wall is a more efficient method of building these slash walls. It saves the extra effort of having a skidder bring wood to the edges of the clearing for its incorporation into the slash wall.

Why build a slash wall? Will the protection of the emerging vegetation within the area of the slash wall from deer browse have a greater environmental benefit than the removal of all that woody debris from the rest of the area? Does the slash wall itself provide any unique habitat benefits, being a linear brush pile?

Would building and then maintaining an 8' tall fence cost more or less, factoring in those environmental costs and benefits??

Did we build the slash wall wide enough to dissuade adult deer from jumping in? What sort of tree regeneration will become established with no or minimized deer browse? How will other plants respond, such as the wildflowers, forbs, and shrubs, and the wildlife that nest in them as part of a healthy understory? Future monitoring will compare the walled-in area to the exterior clearing to contribute to the regional effort on this topic.

Dr. Ward and staffers at the CAES established some regeneration survey plots throughout the 3-acre site, and the RIFCO Demonstration Woodlot will be part of a regional study on deer browse impacts and the effectiveness of various methods to minimize those impacts on the long-term health of our oak forests.

Slash walls here in the northeast are being established on an experimental basis, led by Dr. Peter Smallidge at Cornell University's Arnot Forest in Ithaca, New York. They've established several slash wall operations, with the largest at about 75 acres in size. Peter has information and a YouTube video available on slash walls at www.slashwall.info.

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