

Virginia Tech and Virginia Department of Forestry Collaborate on Statewide Study of Household Firewood Use

By: Eric Wiseman, Virginia Tech

Harvesting and burning firewood are among the best-known and best-appreciated aspects of forest utilization and stewardship. As a forest stewardship tool, firewood harvesting can be used to improve timber stands, reduce wildfire hazards, and eliminate invasive plants and pests. The sale and use of firewood also create a revenue stream from low-grade timber stands or from small forest tracts that cannot support a large-scale timber harvest. Firewood production is also gaining interest in urban areas as municipalities seek sustainable and revenue-generating options for dealing with large volumes of waste wood from both public and private lands. Bistros, breweries, and backyard barbecues drive demand for firewood in urban areas. All this firewood is a valued renewable source of heat, amenity, and recreation for both rural and urban inhabitants.

How do we connect firewood producers with firewood consumers so that firewood markets are viable and firewood harvesting can be leveraged as a forest stewardship tool? That is one of the goals of the Forest Utilization and Marketing Program of the Virginia Department of Forestry (VDof), which has been collaborating with Virginia Tech on a statewide study of household firewood use. The aim of the research is to generate data that VDof can use to guide its technical assistance programs for land managers, forest owners, and firewood sellers. The study is led by Dr. Eric Wiseman, associate professor of urban forestry in the Department of Forest Resources and Environmental Conservation at Virginia Tech. His collaborators include Dr. John Munsell - an expert at Virginia Tech on private land stewardship and landowner behavior, and Dr. Mikaela Schmitt-Harsh - a faculty member at James Madison University who specializes in human dimensions of urban forestry. The study is supported in part by a US Forest Service grant obtained by VDof. Also partnering on the study is the North Carolina Forest Service, which shares this interest to understand and promote firewood use.

Earlier this year, researchers sent a survey to 5,000 households across Virginia and North Carolina. The study was designed to target single-family dwellings in distinct geographic regions of each state and strategically sample a mix of urban and rural households. By the end of data collection in April, the researchers had received nearly 800 survey responses. Analysis of the survey data is underway and expected to conclude this summer. The preliminary findings provide insight as to how folks use firewood and perceive its use:

- About 58% of survey respondents indicated they had burned firewood in the past three years and the most common use was burning firewood outdoors at home for cookouts and other leisure activities.
- About 33% of survey respondents burn firewood for home heating and about half of those heat with firewood frequently.

- Gathering firewood on personal property or other private property is the most common source of firewood for home heating; purchasing firewood is more common for outdoor recreation at the home or while on vacation.
- The most important uses of firewood were leisure activities, forest health improvements, and reducing fossil fuel use.
- Over half of respondents agreed that firewood is easy to find, is a sustainable energy choice, and connects people with nature.

Anyone interested in receiving a summary of the study findings later this year can sign up to be placed on a list at <https://tinyurl.com/FirewoodStudy>.

Additional background details about the study are available at <https://firewood.frec.vt.edu>.

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