

# Natural Lump Charcoal:

*The flavor of sustainable forest management & waste-wood utilization*



A forester marks a timber stand improvement project. The tree with poor form on the extreme right of this photograph needs to be removed; the woody material removed in this type of activity generally has little or no value.

## The story of natural lump charcoal starts in the woods:

Many forests in Virginia need active management to improve timber stands, control invasive species, and reduce the risk of wild fire. These sustainable forest management activities often generate woody material that generally has little or no value. Additionally, tree removals from residential areas and towns often results in unused woody material. Natural lump charcoal **adds value** to these underutilized materials while also **adding flavor and finesse** to your food.

**Preparing the kiln:** Natural lump charcoal is produced using a “New Hampshire” style kiln—constructed using materials readily available at farm supply stores. A “core” of kindling is arranged at the very bottom of the kiln. The body of the kiln is then attached and filled with lengths of wood. Once the kiln is filled, the top is added, and all available space is filled with wood.



These images show a “New Hampshire” style kiln being loaded





**The charcoal-making process:** A fire is started in the center of the kiln, using the “core” of dry kindling wood. Once a fire is started, chimney stacks are added, and the ventilation ports are closed to limit the flow of oxygen. The oxygen-poor environment allows the wood to “cook” into charcoal, but prevents the full combustion of the wood. Within 10-20 hours, the water, hydrogen, methane, volatile compounds, and tars burn off, and the wood is converted into charcoal.

The charcoal is removed from the kiln and sifted to remove any ash, fines, or wood that has not fully charred. The charcoal is now ready for grilling.



Sorting the charcoal

**How to use natural lump charcoal:** Natural charcoal burns hot and long and produces little ash compared to briquettes. It maintains a steady glow when ignited and confers a rich, savory flavor on the grilled food.

There is no need to use starter fluid that could add undesirable chemicals and flavors to your food. For best results, pile charcoal in a chimney starter, and apply heat from below the chimney starter using newspaper or natural fire starter. Allow the charcoal approximately 10 minutes to ignite in the chimney starter, then spread the hot coals out in the bottom of the grill... and enjoy!

**Interested in charcoal production or sustainable forest management?**

Contact Adam Downing, Extension Forester [adowning@vt.edu](mailto:adowning@vt.edu) 540-948-6881

Charcoal Kiln design: <http://www.frec.vt.edu/charcoal/>

Before producing charcoal, please contact your local government to ensure that you are complying with all state and local regulations

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