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An Introduction to Carbon Trading

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By now, you've probably heard about concerns over increasing concentrations of greenhouse gases (GHG) such as carbon dioxide in the earth's atmosphere. Currently, there are no federal laws in the United States governing GHG emissions. However, many states, companies, and even individuals are agreeing to voluntarily limit their GHG emissions through carbon offsets or some other means.

A carbon offset is created by voluntarily removing carbon dioxide from the atmosphere or by working to prevent the emission of a GHG in the first place. Once a carbon offset is created, measured, and verified, the carbon offset can then gain value as a tradable commodity in the carbon market. In the US, the primary market is the Chicago Climate Exchange (CCX). This exchange represents North America's only voluntary, but legally binding, GHG trading market. When we go to the market to pick up a carton of eggs we know that we're getting exactly 12 eggs. Just like eggs are sold by the dozen, a CFI is the unit that carbon is sold in on the CCX. Technically, a CFI is equal to one hundred metric tons of carbon dioxide, or about 220,460 pounds.

New carbon markets are emerging as people move forward with projects to supply the growing demand for GHG gas reductions. Forest management is one possible carbon offset source. As forests grow they naturally sequester, or trap, carbon through photosynthesis. Different types of forest management activities can enhance the rate a forest will sequester, carbon. This makes sense when we remember that carbon sequestration is directly related to tree growth. So, when trees are planted they begin to grow very fast, rapidly sequestering carbon. Forestry offset projects mainly consist of establishing trees on non-forested land or allowing established trees to grow larger.

For example, the overstory trees of a recently afforested ten year old loblolly-shortleaf pine stand under minimal management sequester 9.15 tons of carbon per acre. This value was determined using the Carbon Calculator found at the Carbon Trading: A Primer for Forest Landowners website, www.carbon.sref.info.

This article was adapted from the upcoming Virginia Cooperative Extension (VCE) publication, "Virginia Landowner's Guide to the Carbon Market". VCE will be holding a workshop on carbon trading in Shenandoah County on February 5, 2008. Check the calendar of events for details.

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