

Breaking Down The Forest Carbon Market

By Adam Maggard, Auburn University

Forests are a key tool for reducing atmospheric carbon dioxide levels and climate impacts. The U.S. forest carbon market is rapidly evolving as companies seek to reduce carbon footprints or become carbon neutral.

Forests are carbon sinks, meaning trees sequester carbon dioxide from the atmosphere while growing through photosynthesis, which converts carbon dioxide into carbon stored in wood, roots and leaves. The U.S. Forest Service estimates forests capture about 16% of U.S. greenhouse gas (GHG) emissions.

There are diverse options in the carbon-market sector. Some markets pay directly for carbon stored in forests. Others are indirect, including payments for management practices, reforestation, afforestation or establishing stands. A more common method is deferring harvest to keep carbon stored longer in the trees.

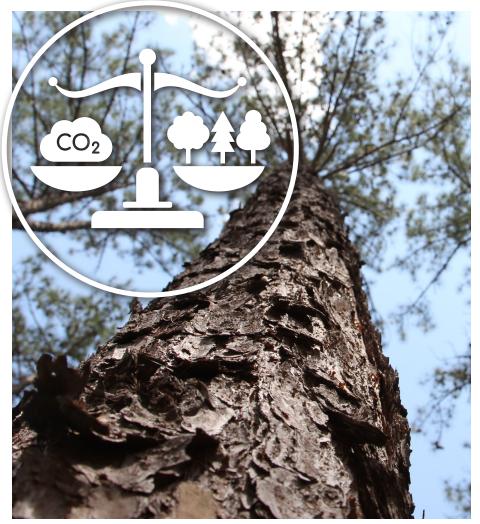
Contract length, acreage requirements and harvesting limitations depend on the program. As programs adjust methods, requirements and contracts, landowners interested in forest carbon market programs must do their homework and understand their responsibility.

Historically, carbon offset programs have been unfeasible as profitability and limitation issues narrow the actual pool of participating landowners.

Some issues include minimum land-holding sizes, long contract periods, high setup and upfront costs, expensive ongoing measurement and monitoring requirements, and limitations to land and resource use. For example, the California Cap-And-Trade Program (the only option until recently for U.S. forest landowners) requires 100-year minimum contracts, strict requirements administered by the California Air Resources Board and severe harvest limitations.

To have a market, the commodity must be measurable, quantifiable, verifiable and trackable. Carbon sequestered by forests checks these boxes. Understanding forest carbon markets requires knowing how carbon dioxide is measured and traded.

The standardized carbon unit is metric tons of



carbon-dioxide equivalent (MtCO2e), commonly called an offset. One MtCO2e is defined as the warming impact of 1 ton of emitted carbon over a 100-year period. Since carbon dioxide is one of the most common GHGs in the atmosphere, all other gases are compared to it for simplicity.

Three forest projects are eligible to produce carbon credits: afforestation and reforestation, avoided conversion and improved forest management. Improved forest management projects are the most common and the only project available in Alabama. In improved forest management projects, participants must show forested acres enrolled sequester more carbon than a "business-as-usual" scenario and demonstrate it would not have occurred without the specific offset project. This additionality is a project requirement. Other requirements are permanence and non-leakage.

To learn more about forest carbon market programs, contact a local Extension office or a professional forester.

ATFA Members,

The spring green-up is here, and the woods are filled with activity and new growth. Field trips for elementary school students, prescribed burns, gobbling toms and blooming flowers — this is the favorite time of year for many. The arrival of spring also means we are finally moving back into a more normal routine of regular field days and landowner meetings. I encourage you to take advantage of opportunities to expand your network and find information to better manage your property.

Thanks to everyone who supports the association by purchasing an "I'd Rather Be in the Woods!" license plate. We are awaiting approval from the Alabama Department of Revenue Motor Vehicle Division for another five-year period of license plate production. Our specialty tag provides a great source of funding for programs such as Classroom in the Forest, the Alabama Landowners Conference and recent sponsorships with the Alabama Cooperative Extension System. That includes a prescribed burn training trailer and a special utility terrain

vehicle to help landowners with limited mobility better enjoy tours. Each year you purchase one of our tags, your money makes an impact.

Another exciting project we are working on is a field guide for Alabama trees. This will be a great resource for anyone who has ever walked through the woods and had one of those pesky, unidentifiable trees.

I sincerely appreciate all of you who contribute to the Alabama TREASURE Forest Association, whether hosting a field day, suggesting a seminar topic, leading Classroom in the Forest or purchasing a vanity license plate. Thanks for what you bring to this organization. Together, we will continue to promote, educate and improve. We value your ideas and input. If you have questions or suggestions about any educational programs, liability insurance or the TREASURE Forest Certification process, please feel free to contact your local director or me at (334) 612-5235.

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William M. Green Executive Director

Funding Available To Help Landowners Fight Cogongrass



Financial relief is available for Alabama landowners adversely affected by cogongrass, a non-native, invasive noxious weed. Visit forestry.alabama.gov to apply.

Administered by the Alabama Forestry Commission (AFC), the Cogongrass Mitigation Program is funded through the U.S. Department of Agriculture. Program goals include reducing the number of infested acres, eliminating damaging effects on existing ecosystems and improving impacted sites' productivity.

Additional objectives include slowing the spread of current cogongrass establishments and preventing introductions into new areas of the state.

Private, non-industrial landowners are eligible for the program. Property with

cogongrass infestations must be in any of Alabama's 67 counties; however, the landowner is not required to reside on the property or within the state. There is no minimum or maximum acreage ownership requirement to enroll in the free program.

U.S. Sen. Richard Shelby, R-Alabama, helped secure funds for the program.

"Cogongrass is a harmful invasive species that has been spreading across Alabama's native vegetation," Shelby said. "I am pleased that this program seeks to assist landowners in mitigating the damaging effects that cogongrass has inflicted on public and private land in Alabama. I encourage all interested and eligible Alabamians to participate in this initiative."

State Forester Rick Oates thanked Shelby for his tireless work helping keep "Alabama the Beautiful."

"We're very thankful to be able to provide this monetary relief to Alabama landowners in the battle against cogongrass," Oates said. "We certainly appreciate the dedication of Sen. Shelby and his staff in bringing this program to fruition."

For more information, visit forestry.alabama.gov, email cogongrass@forestry.alabama.gov or contact a local AFC office.

Cross-Laminated Timber Conference To Be Held In Auburn April 27-29

andowners can learn more about the expanding cross-laminated timber (CLT) industry at an upcoming conference in Auburn.

The Auburn University-hosted conference, built on the theme of "The Sustainable Future of CLT in the South: Grow, Design, Build," is April 27-29 in Auburn.

Focusing on the CLT supply chain, the three-day conference explores diverse topics, including current and future implications for forest management, the wood products sector, markets and economies.

Presenters will discuss the importance of certified, sustainable wood materials and products in the green building industry, in addition to the design, construction, performance and operation of CLT buildings.

Using CLT has economic and environmental benefits and shows promise across industries. Conference attendees include developers, contractors, architects, engineers, foresters and landowners.

To register, scan the QR code or visit sfws.auburn.edu/au-cltconference/.





SPRING INTO ACTION



Scout for next hunting season.

w many times have you heard someone say, "Those deer know when deer season starts?" or, "We've been seeing them all summer and now they have gone into lockdown!"

Fact: Deer do not have deer season on their calendars. Hunters are their alarm clock. It happens every year, and we're all guilty of it. The woods have been guiet with no humans walking around, no allterrain vehicles, no chainsaws, no trucks or tractors, no loud voices or other odd noises. Then a month or week before the season, woods are inundated with unnatural disturbances.

This alarm clock triggers deer to alter movements to avoid disturbances and potential dangers. All these factors are described by two words — disturbance and pressure. I have spent most of my career helping hunters manage for better deer and better hunting. Generally, growing big bucks is easy when hunters follow management recommendations. However, getting bucks in front of hunters is the challenge.

Hunting pressure plays a significant role in hunting success. If you want to see and harvest more deer (i.e., improve deer hunting experiences), intensively manage hunting pressure on property you hunt.

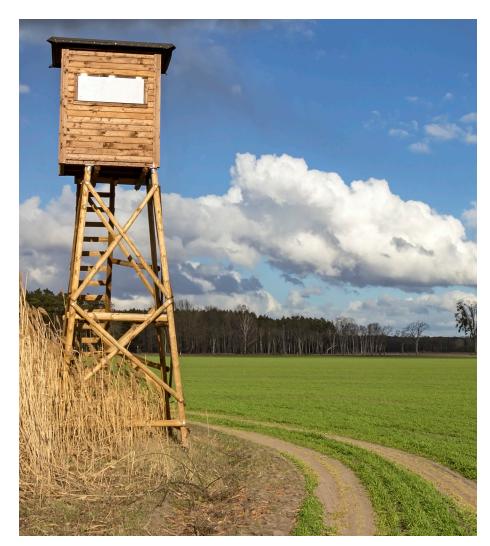
One of the best ways to reduce pressure is to be ready well before hunting season. Late winter, or just after hunting season, is when you should learn more about your property, find areas to improve and figure out how deer or other wildlife use the property. This will help maximize the value and use of your property.

Because deer have been exposed to a great deal of hunting pressure over the past few months, they are using areas where they feel safe and comfortable. If you find out where they are "hiding," you will know where to find them next season once hunting pressure builds and deer seem to disappear. Buck signs, such as trails, rubs and scrapes, are still fresh.

Erecting or relocating stands now allows deer to get used to seeing them over the summer. Although you will have to touch them up before the season starts next year, late winter and early spring are good times to trim shooting lanes around deer stands.

Initiate early spring strip disking.

Are you looking for an inexpensive management strategy to significantly improve the wildlife value of your property? Strip disking is an excellent



management practice producing exceptional food and cover. If you have a tractor and a disk, the only expenses are fuel and time.

Simply find areas within relatively open habitat, drop the disks and drag them. The tractor operator needs to pay attention to avoid stumps or other obstacles. I commonly mow areas beforehand, which removes higher vegetation and helps harrowing to reach the soil and be more effective. The goal is to stir the soil to promote germination in the natural seed bank.

Generally, one pass is needed. Disking can be done along roadsides, in or around old fields, and within thinned pine plantations or mature longleaf stands. Disking strips 10-30 feet wide in early spring will stimulate desirable native quail food plants, such as partridge pea and beggarweed. New succulent vegetation growing in the strips will attract insects.

It's also the best time to disk to promote highquality deer browse, as disking promotes broadleaf weed growth. These areas can be managed by re-disking every other year.

The time of year you disk influences the plants that colonize. For example, winter disking produces heavy-seeded guail foods, such as partridge pea and ragweed, while disking in April increases important seed-producing grasses, such as panic grass. Disking in June favors grasses and green vegetation that attract insects and several major seed plants that turkeys and quail readily feed upon in the fall. In general, seasonal disking can provide diverse seedproducing plants for quail, turkeys and deer.



Establishing Pollinator Habitats

Pollination plays a vital role in the health of U.S. national forests, grasslands and private properties. Together, these areas provide forage, fish and wildlife, timber, water, mineral resources and recreational opportunities, as well as enhanced economic development opportunities for communities.

Keeping pollinator populations healthy is critical to maintaining quality of life for U.S. citizens.

Establishing Pollinator Habitats

Establishing habitats for pollinators can increase plant health and vigor, improve biodiversity and land productivity, and increase the food base for many wildlife species. Better plant diversity within pollinator habitats will enhance wildlife habitat and may increase populations of other beneficial insects.

Native Plants Can Attract Pollinators

Native trees, shrubs, forbs and grasses planted along property borders and within fields can attract wildlife, including pollinators and beneficial insects. The right mix of plant species will bloom all season and provide a continuous source of nectar and pollen.

Pollinator-friendly native species can:

Reduce pesticide use by providing habitat and winter cover for insects, enhancing weed seed suppression and providing biological control of insect and disease pests.

Stabilize soil and provide ground cover by holding root systems in place to reduce risk of erosion.

Act as windbreaks and shelterbelts to protect farmland, crops and livestock from wind and dust damage and may help filter wind-blown weed seed.

Provide wildlife habitat since woody perennials provide food and shelter for many native wildlife species.

Provide clean air as flowering plants produce breathable



oxygen by using carbon dioxide produced by plants and animals as they respire.

Purify water and prevent erosion through roots that hold the soil in place and foliage that buffers the impact of rain as it falls to the earth.

Learn More

The U.S. Department of Agriculture Natural Resources Conservation Service offers financial assistance to help producers establish pollinator-friendly native species. Programs include the Environmental Quality Incentives Program and Conservation Stewardship Program.



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William Green Executive Director (334) 612-5235 wmgreen@alfafarmers.org

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