

Sharing news, stories, and insight about the land we love



Laurens County residents, Chad Culbertson and Patrick Jackson at Timber Creek Farm.

Welcome!

Our lives are tied to the land. This connection is personal and looks different for everyone. What ties us together are the stories ingrained in our land and our lives.

With this newsletter, we'll showcase stories from your neighbors about what being a good steward of their land means to them. Whatever your connection to your land may be, we hope you'll take a moment to reflect on the ties that bind you to the land and what makes the Upstate such a special place to call home.

Please enjoy this first issue of The Steward! If you have feedback or ideas for a story to include in a future issue, please don't hesitate to share by emailing csmith@upstateforever.org.



Christina Sprecher,
Land Stewardship Manager



Caitlyn Smith,
Land Conservation Specialist

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Saving our Carolina hemlocks

by Caitlyn Smith, Land Conservation Specialist

Carla and David Hedden are what you could call hemlock healthcare professionals. David, who retired from the Forest Service in 2010, started to realize something pretty alarming as he scanned the forest canopy: hemlocks were dying, and they were dying at an alarming rate. Unlike the inevitable decline of the American chestnut, evermore becoming a subject of folklore, the hemlock's future is a bit brighter. There is immediate action that landowners can take to save the beloved hemlock.

Carolina hemlocks are a rare species, unique to North and South Carolina as well as Georgia, Tennessee, Virginia, and Ohio along the escarpment of the Appalachian Mountains. Carolina hemlocks are a slow-growing evergreen tree that can reach up to 69 feet tall. Their bark has a reddish-brown hue with horizontal and occasionally slightly drooping branches.

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From left: Chad, Patrick, and Caitlyn outside Timber Creek Farm.

Farming soil: Restorative grazing solutions in Laurens County

by Caitlyn Smith, Land Conservation Specialist

What do a native grasses fanatic and a livestock farmer have in common? For Laurens County residents Chad Culbertson and Patrick Jackson, their common ground was rooted in a desire to farm their land while restoring soil and fields that were barren from years of modern farming techniques. What developed is a system of restorative grazing that not only increases carbon sequestration and water retention (two significant measures of healthy soil), but also improves crop yields, even during severe droughts, which have become more and more common for farmers in the Upstate.

Patrick, whose family owns a farm just down the street from the Culbertsons, had never heard of a conservation easement before. Eventually, he heard that his neighbors were permanently protecting their property as he knew that their area of Laurens County was in deep need of land protection. He wanted to hear more about this option for land conservation. Patrick saw farmland increasingly being turned into development properties. "Somehow we got talking about native grasses," says Patrick, "and that got me interested in putting my own property into a conservation easement." Thus, the partnership began. >>



For Patrick and Chad, regenerative soil acts as a safety net during periods of severe drought - Photos by Morgan Yelton



Patrick's family has been raising Simmental cows for generations.

>> After Chad's family granted the conservation easement, Chad started to think of ways that he could make money while supporting conservation values like protecting water and soil quality — the reasons they protected the property in the first place. Hay production and grazing stood out to him. When Chad discovered that native grasses made good hay for grazing, and also made soil healthier, he knew he'd found a solution.

“The thing that people really make a mistake on,” says Chad, “is they think they are farming beans or corn or wheat or cattle, but what they are really farming is soil and they don't know it.” Soon after, Chad and Patrick developed a business partnership. Patrick grazes his Hereford cows on the Culbertson's land and Chad introduces native grasses to the system.

Chad and Patrick have observed that years of soil depletion from modern farming methods can be reversed through planting native grasses and cattle grazing. Cattle and native grasses go hand and hand with soil health. “The cattle are almost like a probiotic for the soil,” says Patrick. “They inoculate it with their saliva, urine, and feces and they feed the soil by trampling stuff.”

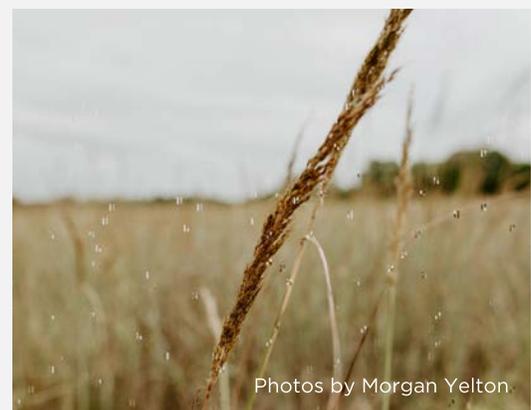
While building up soil and diversifying native grass species, the land also begins to build an incredibly resilient network of root systems that prove vital for farmers during periods of drought. Native grasses increase surface area, allowing water to be taken up when needed.

On Patrick's family farm — Pompey's Rest Farm — the soil carbon content has doubled, leading to about 5-6 tons per acre as a result of keeping their cows on a rotational grazing system and planting cover crops.

Though Bermudagrass remains one of the more popular non-native grasses for grazing livestock, farmers may instead want to introduce native grasses into the system. Chad discovered that although Bermudagrass may have a deep root system, native grasses' root systems are denser.

The size of the root mass enables the roots to store more water than their non-native counterparts. More roots create more surface area to tap into ground water during times of drought. Chad has even found that reintroduction of native grasses on pasture has made springs flow again. A similar occurrence happened in places like the Texas Hill country where residents have replaced Juniper and planted native grasses instead.

(Continued on page 4)



Photos by Morgan Yelton



Patrick is already seeing savings in reduced fertilizer expense and a reduced need for water during periods of drought.

The partnership has been a great way for Chad and Patrick to offset the pitfalls that are inevitable in any farming operation. “There’s leaks in the financials of an agricultural system, and when you can partner with somebody else the leaks are shared. Neither one of you absorbs all of it,” says Chad. It works out well in the short term as well as the long term.

Patrick and Chad focus their passion of farming on the soil, rather than the marketed product. This rethinking of how to manage grazing lands was motivated by farming with conservation values at the forefront. Although they value putting the ecology of the pasture above market demands, they also happened to create a more resilient environment to create greater products. They have also discovered that they can meet those demands with fewer inputs and greater ease. They are building an insurance policy into the soil.

Sometimes it’s just as simple as a change of mindset. As Chad puts it, “A lot of times there’s tiny little changes in things you do. They’re not enormous wholesale practice differences, it’s just as simple as remembering an end result that is based on soil rather than product.” 🌱

Native grasses to introduce to your grazing system:



GAMAGRASS is excellent to use for hay production. This is a tall, perennial, warm season grass that can be harvested more than once during the growing season at about six-week intervals.



INDIANGRASS is a great choice for providing habitat to wildlife as well as for livestock forage. This is a tall, perennial, warm season grass. It provides habitat for wildlife as well as brood rearing areas for quail and other birds.



SWITCHGRASS grows 3-8 feet tall. During the late spring and early fall, it produces heavy growth. It produces high quality hay and is perhaps the most valuable native grass as it is adaptable to a wide range of sites.

Carolina hemlocks, continued from page 2

The culprit of the hemlock decline is the hemlock woolly adelgid (pronounced uh-DEL-jid), a parasitic insect native to East Asia. It is a small insect, although quickly recognizable, similar to an aphid. It feeds on the hemlock from the stems, leaving behind a cloud of white on the undersides of the needles. This insect, which was first detected in the eastern United States in the 1950s, is already the greatest threat to hemlock survival in the Upstate.

“We see this as a national emergency,” says David. “It is a disaster on the same scale as the American chestnut, but the difference is that the American chestnut was taken down by a fungus that you can’t see.”

Unlike the chestnut fungus which persists in the soil after the tree dies, the Hemlock woolly adelgid is an insect that can be managed. “We still have living trees and lots of science going on right now to do something about it,” says David.

The Heddens found that many states in the southeast have their own hemlock conservation organization, but there wasn’t one specific to South Carolina.

“I don’t know why it took me nine years to decide to try to help the hemlocks survive, but I did. Finally, I just looked in the mirror and said, ‘Well, nobody is doing anything, so I guess it is up to me,’” David.

In 2019, after a year of research and greeting homeowners within their community who had hemlocks that needed to be treated, Carla and David Hedden founded Carolina Hemlocks, a 501(c)3 non-profit organization devoted to saving the Carolina hemlocks in the Upstate. The focus of Carolina Hemlocks is to locate and get permission from landowners to treat infected Carolina hemlocks.

Carla and David offer free treatment of infected hemlocks to landowners through support from donations and volunteers. Once the tree is treated, it will repel the hemlock woolly adelgid for about seven years. After that, re-treatment is necessary.



Currently, other groups such as the Forestry Commission are able to treat infected hemlocks on public lands, but the Heddens are focused on reaching out to private landowners to expand the work of other organizations. Carla takes pride in the educational aspects of their organization: “We also increase public awareness by doing talks with other groups. We would like to teach people the treatment method so that they can go out and treat their own trees.”

The Heddens know that time is not on their side when it comes to saving the hemlocks. “I am about 70 years old,” David says. “I figure if my health stays up I can probably do this for five more years and we only have five more years anyway because I feel that the trees that are not treated most likely will be infected within five years — all of them. So there is this urgency to act.”

The good news is that treatment is possible. Through developing a collective of concerned landowners, community groups, and neighbors, this incredibly unique tree can be preserved for future generations to enjoy. As David says, “This is not for us. This is for 50 years from now or 100 years from now so that there will be genetic diversity of trees that are spread all across the Upstate.” 🌱

To find out more about treatment methods available, contact David Jenkins from the South Carolina Forestry Commission at DJenkins@scfc.gov.

For more information on how you can help save the Carolina hemlocks, contact Carla and David Hedden at carlahedden@earthlink.net



Carla and David Hedden,
the founders of Carolina Hemlocks

Upstate Forever's vision for the Upstate is to conserve our land and water resources, resulting in an environmentally healthy and economically prosperous region, with a high quality of life now and for future generations. Our mission is to promote sensible growth and protect special places in the Upstate region of South Carolina.

Follow our work on social media @upstateforever.





Cleveland Preserve Farm in Spartanburg

Our land trust has renewed its national accreditation

by Scott Park, Glenn Hilliard Director of Land Conservation

Following a rigorous application process, Upstate Forever's land trust has renewed its accreditation through the national Land Trust Alliance (landtrustalliance.org). This process includes a comprehensive review to ensure our organization upholds strong standards and demonstrates sound finances, ethical conduct, responsible governance, and lasting stewardship.

Accreditation verifies that we are doing our part with the best interests of our stakeholders like our donors, members, and partners in mind, but first and foremost, national accreditation gives landowners like you the confidence to trust us with one of their most precious assets — their land, now and forever.

Upstate Forever's land trust is stronger than ever for having gone through the rigorous accreditation renewal process once again. Our strength means our region's natural assets — from iconic lands like Stumphouse Mountain, Lake Conestee Nature Preserve, Chauga Heights and Nine Times Forest to working farms and special places across the Upstate — will be protected in perpetuity.

In 2008, Upstate Forever became the first land trust in South Carolina to achieve this esteemed distinction that recognizes land conservation organizations that meet national quality standards for protecting important natural places and working lands forever. Of more than 1,300 land trusts in the United States, we are proud to be one of just 400 that have earned accreditation through the Land Trust Alliance.



Thank you for reading the first issue of *The Steward*,
Upstate Forever's newsletter for conservation easement landowners.

Do you have feedback or a story you'd like to share in an upcoming issue?

We would love to hear from you!

Please email csmith@upstateforever.org to share your thoughts.



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THE STEWARD

Sharing news, stories, and insight about the land we love



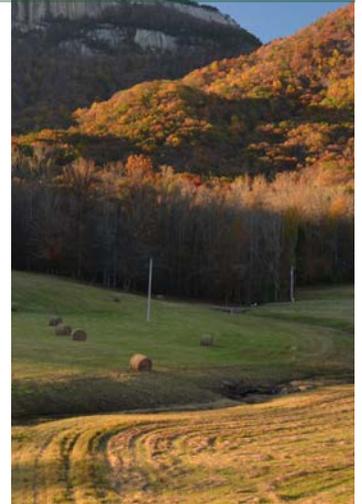
Carolina Grassfed Beef



Thrift Lake



Timber Creek Farm



Grant Meadow

A few of the many scenes from Upstate Forever's conservation easements. Through our Land Conservation program we have protected over 23,600 acres in our Upstate.