

**Testimony of Leo Bastos**  
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**Before the House Agriculture Committee Hearing “Voluntary Carbon Markets in Agriculture and Forestry”**  
**Thursday, September 23, 2021**

Chairman Scott, Ranking Member Thompson and members of the Committee, thank you for holding this important hearing and for inviting me to testify. I am Leo Bastos and I am Senior Vice President and Head of Global Commercial Ecosystems for Bayer Crop Science, the agriculture division of Bayer that provides seeds, traits, chemistry, and digital products to American farmers. I am responsible for developing farmer-focused low-cost carbon solutions, including the carbon program we launched in the U.S. last year.

Bayer is committed to helping decarbonize the agriculture sector and remove greenhouse gases already in the atmosphere in order to reduce the impacts of climate change. We are also committed to research and innovating new ways to increase agriculture’s resiliency to the climate change impacts farmers are already experiencing.

When it comes to climate change, agriculture is a contributor to greenhouse gas emissions, and we must cut emissions in our sector to keep global warming below 2 degrees Celsius. But agriculture can also be part of the climate change solution if we help farmers draw down greenhouse gases already in the atmosphere and store it deep in the soil. The science tells us that this is possible. But agriculture is complex. Differences in crops grown, soils, regional climates, pest and disease pressure, and historical practices all impact how a farmer might grow their crop each season. So there will be varied solutions for farmers all over the country. But today we are focusing on the underlying driver of action and innovation: trading carbon on voluntary markets. Carbon markets are an economically efficient way to reduce greenhouse gases by incentivizing rapid large-scale adoption of climate smart agronomic practices that help benefit growers’ soil health, potentially enhancing yield, while ensuring growers can turn soil carbon into a part of their farm business.

The recent boom in carbon credit markets has been driven by consumer demand for and corporate interest in sustainability, combined with farmers looking to generate another revenue stream from their lands and their interest mitigating climate change through on-farm conservation practices. As an agriculture and technology company, we see Bayer as optimally positioned to help line up all these factors and deliver a climate smart revenue stream for farmers.

More than a year ago, Bayer began enrolling farmers in a carbon program that pays them to adopt agronomic practices – primarily no-till and cover crop planting – to sequester carbon in the soil of their fields. These farmers do not have to grow Bayer seeds nor use Bayer crop inputs to participate. There are a couple of things that make our program different. First, we eliminate the economic risk for farmers who typically must invest in climate-smart farming, measure the carbon stored, and then get a payment. Instead, we pay farmers for the practices up front so they can easily make an economic decision and enter the carbon marketplace. We’ve made it simple to enroll. Farmers choose the practices and fields they want to enroll and payments are generated independent of carbon stored.

The second thing that we are doing that is different is low-cost, low-touch verification of carbon sequestration so that there is enough money left for a revenue stream for farmers. We do this by harnessing farm data, digital technologies and imaging to verify and validate the carbon stored in the

soil. Finally, we are committed to helping farmers get the value of a carbon credit by ensuring future carbon credit value increases are shared.

On the other side of the carbon market, we work with supply chain partners to link demand for carbon storage with the supply that farmers can provide. When it comes to the agriculture and the food value chain, large seed and input suppliers such as Bayer have the closest connection to farmers through our retail networks. This relationship to farmers along with our climate commitments create the opportunity for us to partner with other members of the value chain to help meet their own commitments to sustainable food systems.

Our work to link the demand for carbon storage to farmers has taught us how complex voluntary carbon markets are. A carbon credit that is tradeable on a marketplace requires verified, audited carbon removals that meet the science-based standards set by organizations and registries that regulate carbon markets. But carbon standards for soils are constantly evolving and are being worked on by multiple global standards organizations leading to numerous standards and confusion about what will ultimately be considered a carbon credit. We hear from farmers that this confusion reduces their ability to participate in carbon markets when they can't be sure they are making a capital investment that will ultimately produce a verified carbon credit.

In order to move carbon markets forward we must tackle this uncertainty and the resulting confusion. We must recognize that while U.S. agriculture is diverse, we need consistent standards to accurately measure, track, and evaluate decarbonization over the long-term. Consistent standards will allow farmers to participate profitably by giving them predictability, a return on early investments, and enabling monetary and technical support to ensure farmers can participate in this climate-sustainable market.

This Committee can help voluntary carbon markets scale up faster and provide more certainty for farmers in this rapidly evolving space. One way the Committee can help is by passing the Growing Climate Solutions Act, which provides a foundation for assisting farmers navigating a complicated system so that they have confidence in their information about enter the carbon business. I also urge the Committee to work with USDA to eliminate the confusion created by a lack of information about the carbon bank concept. Farmers and companies are waiting to make investments and decisions until we know what the carbon bank is.

Innovations in agriculture are transforming farms to not only reduce their emissions, but also pull carbon out of the atmosphere. This is the insight behind Bayer's Carbon Program in the U.S., which enables and incentivizes farmers to adopt climate-smart practices that capture and store carbon in their fields. Similar programs are now live in Brazil, Argentina and select European countries. By simultaneously prioritizing soil health, farmers' livelihoods and our climate, this global initiative is laying strong foundations for a net-zero carbon emissions future. That's good for growers, consumers and our planet.

With the 2018 Farm Bill, this Committee made historic investments in on-farm conservation. Once again, this committee is in the position to shape the future of American agriculture and ensure that farmers can participate and benefit from the consumer demand for climate sustainable foods. We look forward to helping you and our farmer customers make the most of this exciting new opportunity.