**Brian Martin, left, of G&C Farm shows U.S. Secretary of Agriculture Secretary Tom Vilsack and Gov. Kate Brown berry crops damaged by drought and high temperatures.** PHOTOS BY BRIAN HAYES/STATESMAN JOURNAL

# 'A model for the future'

**Connor Radnovich** Salem Statesman Journal
USA TODAY NETWORK

**Vilsack says financial assistance to farmers whose crops were impacted by weather is currently under debate.**

U.S. Secretary of Agriculture Tom Vilsack called Oregon's diverse agricultural landscape "a model for the future of agriculture" during a visit to the mid-Willamette Valley on Tuesday, which included a tour of a local family farm and meetings with Gov. Kate Brown.

"It's such a more resilient system, and we obviously want to continue to see farmers be able to prosper here in Oregon and across the country," Vilsack told reporters while at G&C Farm outside Salem.

Despite that diversity-grounded resiliency – boasting specialty growers and more than 220 commodities – Oregon farmers face significant challenges stemming from climate change. This year alone, the Willamette Valley saw historic weather events in the Valentine's Day ice storm and the two-day "heat dome" in June.

Taylor Martin of G&C Farms said they lost 65-70% of their cane berry crop this year in just those two days. He and his father Brian Martin took Brown and Vilsack on their tour, including showing them blackberry leaves crisped from the heat.

"We've never had an event like this. The heat dome ... basically baked them on the cane," Taylor Martin said.

93% of the state is currently in severe or extreme drought conditions, Brown also noted.

"We are obviously seeing the compounding impacts of climate change on the ground here in Oregon," Brown said.

Vilsack said farmers who were impacted by the weather this year might be able to apply for some financial assistance in the fall. A payment framework is currently under debate and could be announced publicly in late August or September.

He added that existing assistance programs intended to provide support to farmers during disasters needed to be looked at for potential improvements.

The pair also had a meeting at the Oregon Office of Emergency Management building to discuss wildfire risks and coordination between the state and federal government on wildfire resiliency and suppression efforts.

Vilsak also touted President Joe Biden's Build Back Better plan and the $1 trillion bipartisan infrastructure package currently in the Senate as containing critical investments to support agriculture and wildfire resiliency.

"We need to do a better job of managing our forests, and that requires resources," he said. "We've been attempting to do forest management on the cheap."

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# Penn State team fights to bring back 'survivor' tree

**Frank Bodani**
York Daily Record
USA TODAY NETWORK

YORK, Pa. – The colossal tree in York County, Pennsylvania, is one of the nation's great survivors.

Its seven trunks erupt in all directions from a well-worn base in an open field. Its limbs are gnarled and its height stunted from disease. Its outer leaves and stems are browned and cracked from cicadas.

It is no longer smooth, straight or majestic. Its power comes from within: How it has produced what amounts to a protective armor of furrowed bark to ward off what has killed most of its kind.

It is a living marvel, as far as trees go.

One of the nation's largest disease-resistant American chestnuts continues to grow and even thrive for reasons unknown next to a church parking lot, not far from Interstate 83.

Researchers at Penn State and across the East Coast continue to study it and the few others like it – taking pollen and gene samples to aid their long-standing fight to return one of America's most-prized hardwoods to the landscape in all its glory.

The York County tree is probably around 100 years old. It defies gravity by unduly stretching and twisting its weighty branches, some reaching down to try and touch the earth.

It is one of just a few known old-growth American chestnuts in Pennsylvania that have developed a means to fully repel the blight that brought this species to the brink of extinction. While countless chestnuts are still sprouting on forest floors, the disease kills nearly every one before it grows above 10 feet, and begins to reap its true value.

These "survivor" trees continue to help restore what some call the most valuable tree in our nation's history.

One of the most useful trees in the world.

And though arduous, the chestnut's recovery appears to be gaining steam.

Foresters, environmentalists and researchers such as Sara Fern Fitzsimmons, director of restoration with the American Chestnut Foundation in State College, Pennsylvania, talk about why the cause is so important.

The tree's nuts once were so plentiful they'd pile into a forest carpet six inches thick in the fall. They were integral to feeding people, livestock and wildlife such as deer and turkey.

Chestnut wood also was prized for its rot-resistance and strength, and was used to make everything from cradles to coffins. Its tannins were vital in the leather-making industry.

And the fast grower quickly re-sprouted after cutting and was ready for another harvest in only 20 years.

Chestnuts were the most versatile of the primary hardwoods in the Eastern forest, including oak, cherry and walnut.

"Everything revolved around the American chestnut," said Renae Weidner with Pennsylvania's Department of Conservation and Natural Resources.

"And then they were gone."

There once were nearly 4 billion American chestnuts growing east of the Mississippi River.

That began to change dramatically after a fungal blight arrived more than a century ago, accidentally transported along with imported Chinese chestnut trees. The fungus took hold swiftly and killed unconditionally, leading to what has been called "the greatest ecological disaster" in our world's forests.

By the time it was fully identified in 1904, the blight was beyond control. Spread by the wind, it was moving an estimated 50 miles per year, tree by tree.

After surviving every possible ecological challenge for 40 million years, the American chestnut was nearly wiped away in just 40.

It is still described as "functionally extinct," which means that though its root system continues to thrive and it can reproduce, it rarely lives long enough to grow into a formidable tree. They often resemble shrubs before succumbing to the blight.

The effort to create a sustainable, disease-resistant variety of chestnut is just one mission in the ramped-up fight to save American native forests. Other famed growers such elm, ash and more recently hemlock and beech trees have all been decimated, in some form or fashion, by foreign pests and disease.

The American chestnut recovery has stretched the longest. Its ultimate success could add much-needed diversity to our forests and provide keys to help those other struggling trees recover, Fitzsimmons said.

One part of the restoration includes the estimated 500 chestnut research orchards stretching from Maine into the Midwest and along the Appalachian Mountain range. In places such as Codorus State Park in York County, four orchards feature traditional breeding methods of crossing strains of American and Chinese chestnuts in hopes of developing blight resistance.

Another restoration tactic involves creating a genetically modified chestnut. Researchers have added a wheat gene to the American chestnut to potentially increase resistance.

The long-term results of these efforts, though, are still unknown. While mass plantings of these newly created trees are underway, "restoration is a decades- to century-long process," Fitzsimmons said.