

MSU research aiding essential wood products industry

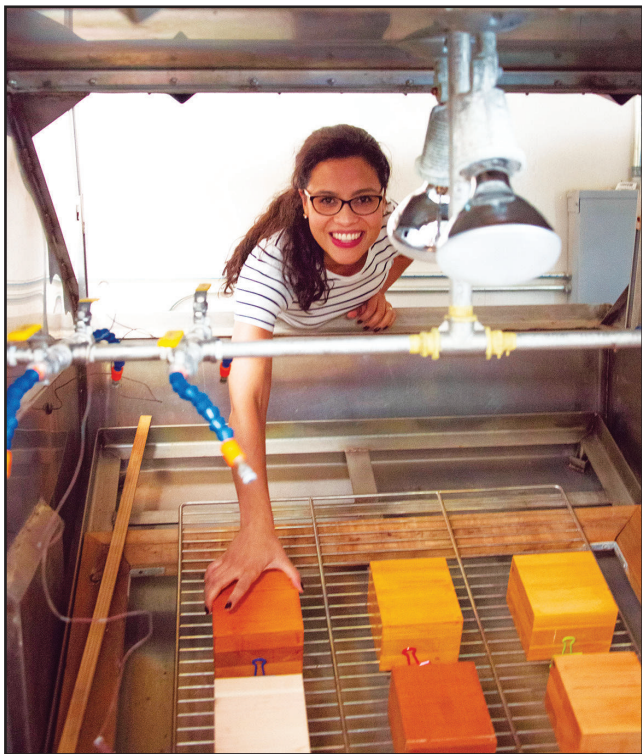
Mississippi State University

Amid the COVID-19 outbreak, the U.S. Department of Homeland Security has identified the wood products industry as an essential critical infrastructure workforce.

Mississippi State has the only research program in the state dedicated to expanding the service and use of wood products, delivering research to the state's forest industry. While the way the research is being conducted may have shifted temporarily, researchers are leaning into the situation to ensure the important work marches on and the university continues supporting vital industries.

Forestry is the state's second largest commodity, behind poultry and eggs. Forestry in combination with forest products is even larger and employs a workforce of 69,000 individuals in Mississippi across four sectors—logging, solid wood products, pulp and paper, and wood furniture.

University faculty and staff, under the guidance of the Mississippi Institutions of Higher Learning and the Center for Disease Control and Prevention (CDC), have



MSU doctoral student Garbrielly Dos Santos Bobadilha tests CLT coatings against environmental elements including rain, heat and high humidity.

(Photo by Dominique Belcher)

been conducting research by alternating personnel schedules to maximize productivity while following safety protocols set by the university to protect students, researchers, faculty and staff.

In light of Gov. Tate Reeves' shelter in place order beginning April 3, researchers

will be continuing relevant telework research activities, including data analysis, data preparation and resource development.

"We are conducting business differently than we have done before, but research must continue," said George Hopper, dean of MSU's Col-

lege of Forest Resources and director of the university's Forest and Wildlife Research Center. "The need for forest products research is vital in a state where over 19.7 million acres or 60 percent of our landmass is forested and predominately owned by private landowners."

Rubin Shmulsky, head of the Department of Sustainable Bioproducts, explained that research expands opportunities for forest landowners and keeps a crucial industry moving forward.

"We are committed to our mission, even as we respond to a critical, yet fluid public health crisis," Shmulsky said. "One area of emerging research that will assist landowners, manufacturers and the construction industry alike is the improvement of cross-laminated timber panels."

Cross-laminated timber (CLT) is a large-scale, prefabricated, solid engineered wood panel, as defined by APA-The Engineered Wood Association. These panels have superior qualities as a building material for long spans in walls, floors and roofs. CLT, which has been used to construct large buildings in Europe for the last two decades, is experiencing rapid growth as a building material in the U.S. and Canada.

The product is made by gluing 2x4, 2x6 and 2x8 pine lumber in a perpendicular pattern. Mississippi State scientists are looking at how notching affects the product strength and trying to find ways to make the panels stronger. Notching of panels helps improve architectural freedom and can reduce construction time. Scientists are experimenting with different notch depths and comparing notched panels to those without notches.

"Findings from this research will improve the market acceptance of this emerging product by providing architects the assurance that southern pine based-CLT panels will provide the strength and stability required in new construction," Shmulsky said. "We are also working to improve durability by protecting against insects and fungi so that CLT will have a long service life."

Testing strength and stability in lumber and engineered wood products and then finding ways to improve those variables contributes to the economic value of forest products. Scientists work with numerous types of wood, including engineered wood, to ensure the products have the quality and long service life consumers and industries need.

An example of this work is found in wood utility poles. There are approximately 130 million wood utility poles in service throughout the U.S., according to the North American Wood Pole Council. Southern pine, along with other species, are commonly used as distribution and transmission utility poles.

MSU scientists and the council have a long history of working together to test wood utility poles for durability and strength with the focus on giving manufacturers the tools they need to operate.

"We can all appreciate the value of wood utility poles to deliver our electricity, internet, and telephone services, especially now when most Americans are sheltered at home," Shmulsky said. "This work is important to continue the service life of wooden utility poles, and their function is an essential part of society."

Other ongoing work includes developing bio-based plastics, graphene and nanotechnology. Development of an app to identify wood is in the early stages of development.

"We are here to ensure that our wood products industries continue to thrive now and into the future," Shmulsky added.



Is it an emergency?

Dear Dave,
My husband and I just completed Baby Step 3, and we have six months of expenses saved for an emergency fund.

How should we determine when something is actually an emergency?

Riley

Dear Riley,
Congratulations on doing the work, being disciplined, and saving like crazy! Now you've got peace of mind, and a pile of cash, that will help turn an emergency into nothing more than an inconvenience.

There's no shame in using your emergency fund if you really need to. That's what it's there for. Just remember to ask yourself a few questions anytime something pops up to make sure you've got a real reason to use it.

Is the expense really unexpected? Christmas happens on December 25th every single year. You know your semi-annual car insurance payment is coming, too. Make sure things like this are part of your regular, monthly budgets.

Some examples of unexpected expenses might be a job loss or pay cut. Emergency medical expenses and car accident repairs might fall into this category, as well. Is it absolutely necessary? Most people say they know

the difference between a want and a need, but that's not always the case. Replacing your only mode of transportation would be a need. Upgrading to a newer, fancier car is not. If your car goes down for the count, you need transportation.

Use your emergency fund to buy something affordable and reliable you can pay cash for. But don't dip into it just to upgrade your decent car for one with a million bells and whistles.

Is it urgent? Practice the art of patience whenever possible. If your home's air conditioning unit goes out in the middle of summer, that's probably an urgent fix. But hearing about the "sale of the century" at your favorite retail store? Grabbing the newest, hottest cell phone when yours works just fine? Nope!

Your emergency fund is all about long-term security, not instant gratification.

Don't blow it impulsively, but don't be afraid to use it when it's really needed.

Be wise, and ask those three questions. Check yourself so you don't wreck your self—or your budget!

—Dave

**Dave Ramsey is CEO of Ramsey Solutions. He has authored seven best-selling books, including The Total Money Makeover. The Dave Ramsey Show is heard by more than 16 million listen-*



Warm weather is upon us and the early spring green-up is slowly adding color to the woods again. Turkeys are gobbling and turkey hunters are in the 2020 season.

Once your calling has been fine-tuned, safety is the next concern, one hunting fatality in Mississippi is too many.

More accidents occur every year to turkey hunters than in any other kind of hunting. Many of these accidents could be prevented if hunters would obey the Ten Commandments of Firearm Handling—something every person who has taken a hunter education course should know and practice. While we're on that subject, it's not a bad idea to enroll in a hunter education course, just for a refresher (take along a youngster or hunting buddy). You're never too old to learn about safety.

Because the hunter must blend in with the surroundings, turkey hunters do not wear hunter orange. Most turkey hunting accidents occur when hunters are mistaken for a turkey. However, there are several things a

ers each week on 600 radio stations and multiple digital platforms. Follow Dave on the web at daveramsey.com and on Twitter at @DaveRamsey.

hunter can do to prevent such a tragedy from happening:

(1) There are only two kinds of safe turkey hunting: calling the birds in, or standing and waiting. Never try stalking.

(2) Be sure you are completely camouflaged; however, when moving to and from a hunting site, always wear hunter orange.

(3) Pick your hunting spot with a good backrest. A tree or embankment wide enough to completely cover your outline from the rear will protect you from being shot from behind.

(4) If another hunter comes near, call out in a calm voice. Don't shout, whistle, stand, or wave and especially don't give a turkey call. Keep your distance from other hunters.

(5) Use only hen decoys. Place the decoy so you are safe from shots by other hunters. Position yourself either to the front or rear of the decoy. If the decoy is shot from the sides (the most likely angle) you will not be in the line of fire.

(6) Always practice safe gun handling.

(7) Always carry a harvested turkey out of the woods in a hunter-orange game bag.

When you are in the woods this spring, make every effort not to throw trash on the ground.

Lt. Governor's office launches 'Healthy at Home: K-12 Students' perspective on COVID-19'

Press Release

Teachers can opt to include a new project in enrichment packets sent home with students: assignments challenging students to think about how the COVID-19 crisis is impacting their communities and share ideas about how lawmakers could address it.

Dubbed "Healthy at Home: K-12 Students' Perspective on COVID-19," Lieutenant Governor Delbert Hosemann and staff developed three grade-appropriate assignments including:

- A Think, Draw, Write! activity challenging pre-K through 3rd Grade students to imagine they are visiting the Mississippi Capitol and share ideas on how to keep families healthy with their lawmaker;
- Writing prompts for 4th through 6th Grade students

If you see trash in the woods or on the ground in the parking area, pick it up, put it in your pocket, or throw it in the back of the truck.

Have a safe and successful turkey season.

James L. Cummins is executive director of Wildlife Mississippi, a non-profit, conservation organization founded to conserve, restore and enhance fish, wildlife and plant resources throughout Mississippi. Their web site is www.wildlifemiss.org.

to explain how they are staying connected to their teachers and school, and/or describe a goal they have set for themselves while learning at home, among others; and

· Essay prompts for 7th through 12 Grade students discussing how the COVID-19 crisis is changing their community, or how better access to technology could connect people who are asked to engage in social distancing, among others.

The assignments were created in collaboration with teachers and administrators across the state.

With a parent's or guardian's permission, the Lieutenant Governor's Office will share submissions on social media and with state Senators. Assignments may be returned to a teacher for submission to the Lieutenant Governor's Office, or students and parents can return it directly. Submissions may be mailed in to P.O. Box 1018, Jackson, MS, 39215, or a photo of the completed assignment may be sent to ltgov@senate.ms.gov.

For more information, or to download the assignments and permission slip, visit <https://ltgovhosemann.ms.gov/wp-content/uploads/2020/04/K-12-LTG-Assignments-3.31.20.pdf>.