

FARMER 911

In August 2021, Tropical Storm Fred devastated a farming community in Haywood County. NC Cooperative Extension responded with resources tailored to its residents' needs.

written by KEVIN MAURER / photography by DEREK DILUZIO

JOHAN LEATHERWOOD started farming behind a horse and a cultivator in 1975. In recent years, he's run a vegetable and cattle operation in Haywood County. In mid-August 2021, he was in peak bell pepper and tomato season. Then the rain came.

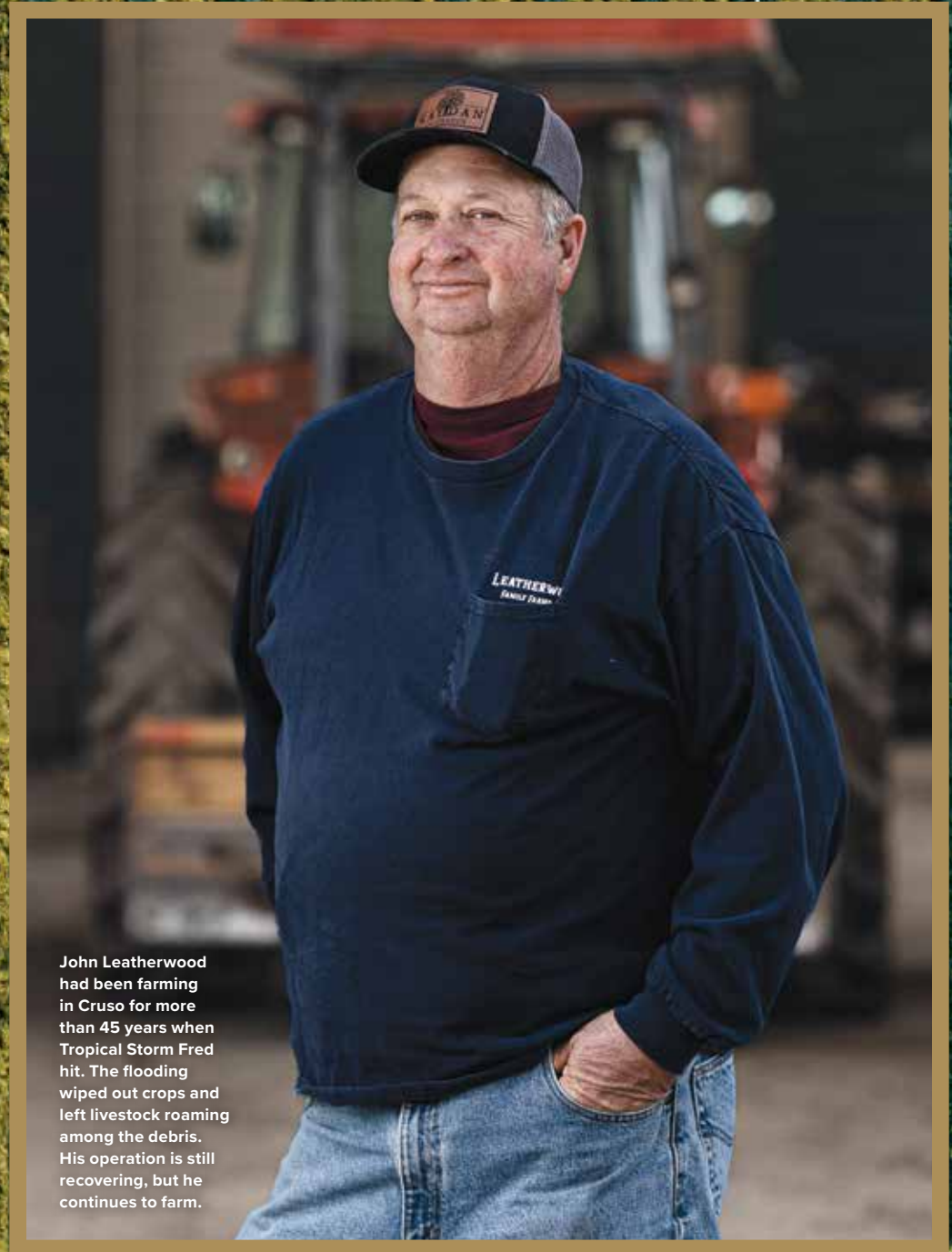
Meteorologists tracked Tropical Storm Fred as it churned in the Gulf of Mexico, lashing Florida's Panhandle and sending bands of rain and destructive tornadoes as far east as South Carolina. Then Fred headed north.

When the storm hit western North Carolina,

it brought with it torrential rain. In Cruso, where Leatherwood Family Farms is located, the storm dumped 14 inches of rain — more than nine inches in just 24 hours — swelling the Pigeon River, which flows through the Great Smoky Mountains. Pastures flooded; fences were washed away.

"It got all my vegetable crops, like 10 acres of tomatoes," Leatherwood says. "It just washed them flat."

The flood also damaged two miles of permanent fencing, tearing out stakes and washing away the wire — and freeing Leatherwood's 50 head of



John Leatherwood had been farming in Cruso for more than 45 years when Tropical Storm Fred hit. The flooding wiped out crops and left livestock roaming among the debris. His operation is still recovering, but he continues to farm.

SATELLITE IMAGE BY NASA WORLDVIEW

Black Angus. “I had cattle running everywhere,” he says.

Leatherwood and his neighbors had just corralled his cows when he got a call from field staff at NC State University’s Mountain Research Station asking what help he needed. Dr. Deidre Harmon, a livestock specialist with NC State Extension, and others soon came out to assist with moving heifers to safe pastures.

Harmon was at the Mountain Research Station in Haywood County and witnessed the devastation firsthand. “It was almost like a tsunami came down the mountain,” she says.

The storm left remnants of civilization scattered along the banks of the Pigeon: Power lines collapsed into the river. Upside-down cars and trucks sank in the mud. Trailers were knocked off foundations. Homes were smashed into kindling. Roads were blocked by mudslides and debris, making it difficult to get to Cruso.

“There was just so much devastation in the area that it was almost hard to fathom,” Harmon says.

In addition to calling Leatherwood — Cruso’s unofficial mayor — Harmon and Ethan Henderson,

agriculture agent for NC Cooperative Extension’s Haywood County Center, sent messages to the network of extension agents in the affected counties to assess the damage. Harmon and Henderson, together with the NC Department of Agriculture, NC Cooperative Extension, and the North Carolina Cattlemen’s Association, organized volunteers to help round up cattle and build temporary fences around pastures. After the Cattlemen’s Association got a trailer of fencing supplies up the mountain, volunteers, including Harmon, split into four crews and went to the areas that had the most damage.

“During a disaster, you’d better show up with boots on the ground because you never know how much you can change someone’s life by just being there,” she says.

The storm left remnants of civilization scattered along the banks of the Pigeon River.

The mud was so deep in some of the pastures that they were impossible to cross. It sucked the boots off one volunteer, forcing him to walk back to the trucks in his socks. By the end of the day, a sweaty, exhausted Harmon was caked from head to toe in thick mud.

“It truly was a team effort among so many,” she says. “Here in the mountains, we aren’t just colleagues, farmers, or acquaintances; we’re a large agricultural family. When one of us suffers, we all suffer.”

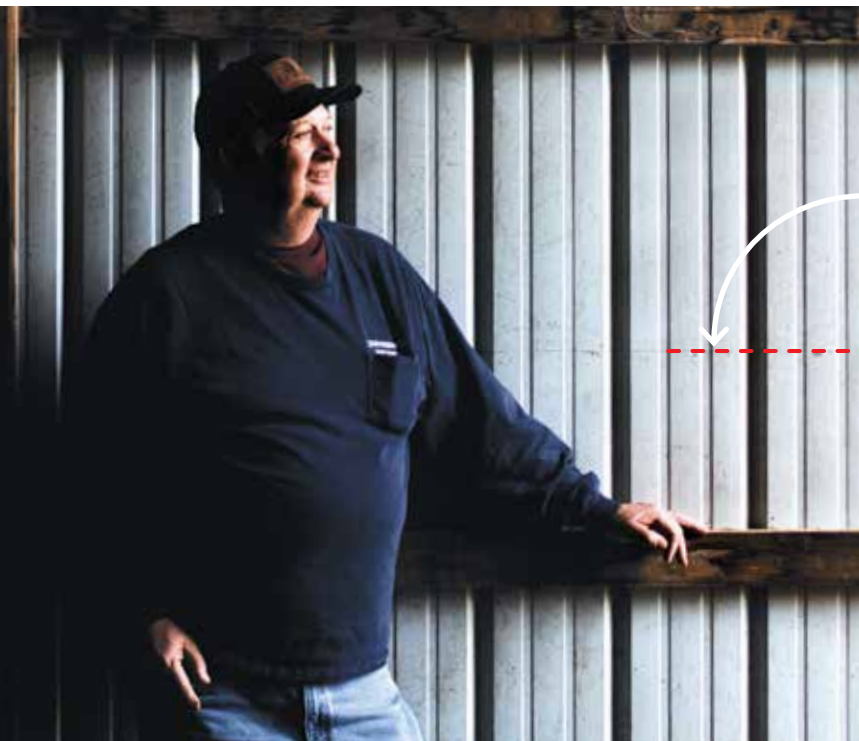
As they worked, it was impossible to escape the devastation. Harmon’s team worked side by side with rescue crews. National Guard helicopters flew overhead. Six people had died in the storm; the last body wasn’t recovered until 10 days after the storm.

After the livestock was returned to safe, fenced pastures, Harmon pivoted to helping residents. A woman whose home was damaged needed assistance cleaning out her basement. For several days, they hauled out water and muck, one bucket at a time.

“I was catching fish in her basement and taking them back and putting them in the river,” Harmon says. “The fish were still alive after all that time had passed. It was just amazing.”

Dr. Deidre Harmon was among the first responders who arrived in Cruso to help move cattle to safe pastures and return fish that were stranded in basements to the Pigeon River.





A line on the side of Leatherwood's equipment shed shows where the floodwater from Tropical Storm Fred crested.

TROPICAL STORM FRED MAY HAVE TAKEN WESTERN North Carolina farmers by surprise, but back in Raleigh, Mike Yoder was ready for whatever the storm brought. Yoder, NC State Extension's emergency programs coordinator, focuses on disaster preparedness. He works with a host of North Carolina governmental agencies and organizations — including Farm Bureau, Horse Council, Cattlemen's Association, and dozens of others — that form the State Animal & Agricultural Response Teams. The group does its best to make sure that the state's farmers are prepared for floods, hurricanes, and tornadoes.

Even now, almost two years after Fred, farmers still face storm-related challenges.

"North Carolina has one of the finest emergency management programs in the country," Yoder says. "That said, we constantly have to be on our guard."

Hurricanes get the headlines, he explains, but severe weather like tornadoes and climate change are also major threats. "The big thing that worries me is droughts," Yoder says. "[Hurricane] Florence is maybe a once-in-a-lifetime thing,

but for the past five years, we've had a drought somewhere in the state. This really disrupts agriculture, especially our pasture-based livestock systems, because we're dependent on rain."

When a disaster like Fred strikes, Extension employees head to the Agricultural Emergency Operations Center at the NC Department of Agriculture & Consumer Services in Raleigh to help coordinate relief efforts. Yoder heads to the state Emergency Operations Center. From there, he communicates with Extension agents across the state, helping to coordinate disaster relief donations, running animal shelters, and making sure that feed reaches animals in the disaster zone.

While mitigating the impact of the disaster in the immediate aftermath of the storm was a top priority in August 2021, the extent of the tragedy has continued to reverberate long after the flood receded. Harmon says that even now, almost two years after Fred, farmers like Leatherwood still face storm-related challenges.

He's repaired his equipment shed, but he's still trying to make up for the loss of his pepper and tomato crops. A lot of his farm equipment has broken down over the past year because of flood damage. As he looks forward to the recovery ahead, Leatherwood can't help but think back to the help that Extension specialists like Harmon provided. In the days after the flood, he says, they were a blessing that allowed him and his fellow farmers a chance to stabilize, a chance to rebuild.

As for Harmon, she finally went back to Cruso in November — more than a year after the storm — but she still constantly thinks about those 10 days.

"I've never experienced something like that in my life, and it was just overwhelming how sad that event actually was," she says. "Extension is not just a job; it's a lifestyle. You have dedicated your life to the service of others and to helping them in any way you can." **Os**

Kevin Maurer is an award-winning journalist and a New York Times best-selling author.