



**MOMENTUM**

# How the Coronavirus Outbreak Upended the Meat Supply Chain

Page 14

## White Gold

The Erickson Family Has Filled a  
Farming Niche in Northwest Missouri

Page 6



We live where you do.

Summer 2020



# KEEP YOUR ENGINE FROM TANKING.

You want to get the most out of any diesel engine? Start by filling it up with BOSS Performance Diesel. BOSS keeps engines clean, improves performance and helps machines run more efficiently, longer. In other words, put good in, get good out.

**MADE TO  
WORK**

**BOSS**<sup>TM</sup>  
PERFORMANCE DIESEL

**MFA**<sup>32</sup>**OIL**  
**Petro-Card 24**

Find our products  
near you by visiting  
[BossPerformanceDiesel.com](http://BossPerformanceDiesel.com)



# Contents

## Features

6

### White Gold

The Erickson Family Has Filled a Farming Niche in Northwest Missouri



10

### Man on a Mission

Veteran Applies Army-Honed Skills to MFA Oil Role



14

How the Coronavirus Outbreak Upended the Meat Supply Chain



20

### Targeting Optimum Cow Size

K-State Beef Cattle Specialists Discuss Factors that Influence the Most Efficient Cow Size

22

### Ag Educators Series: Embracing the Art of Teaching Ag

## In Every Issue

- 4 Letter From the CEO
- 5 Spotlight
- 18 The Big Picture
- 24 Giving Back
- 25 News Briefs
- 26 Market Commentary



## On the Cover:

The Erickson family raises conventional white corn on their farm in Tarkio, Mo., and is seeking to capture more value from their specialty crop. *Photo by Jason Jenkins.*



# Where We Stand

## WHAT AN INTERESTING SPRING

it's been. While the coronavirus outbreak shut down large portions of the country and the economy, MFA Oil remained open as an essential business so that we could continue to meet your needs.

We took action in the early stages of the pandemic to introduce safety precautions that were in line with guidance from the Centers for Disease Control and Prevention to protect the health and well-being of both our employees and our customers. This included providing personal protective equipment to our frontline staff, incorporating social distancing, increased sanitation of our work areas and much more. We made sure to communicate regularly with our employees to keep everyone up-to-speed and to ensure our service to you did not falter as we were dealing with so much change. I am proud of the way our employees were able to adapt to these unforeseen challenges so quickly and can't say thank you enough to all of our staff for their continued dedication to our cooperative.



Jon Ihler

You have probably heard of many companies that have been forced to furlough or lay off their employees because of the COVID-19 crisis. I am pleased to report we have managed through the situation without having to go that route. MFA Oil remains financially secure, and we are well-positioned to continue serving you. We know the downturn in the economy has affected many people, so we decided to waive interest charges and late fees on our bulk fuel, propane, Petro-Card 24 and Preferred Card accounts through May 1. Our Big O Tires stores also relaxed finance charges on purchases during that timeframe. These are just a couple of ways we sought to be helpful to those who needed it during this period of uncertainty.

As we emerge from the stay-at-home orders and our communities reopen, I want to assure you that your cooperative will continue to be there for you. We are all in this together. I believe the adage "tough times don't last, tough people do" is not only true but fitting for the situation in which we all find ourselves. We can't change the past or how COVID-19 may have affected our communities, but we can learn from it and work together toward building a brighter future. We remain just as committed to serving you and our communities as we have ever been. You can count on that.

Jon Ihler  
President and CEO



Summer 2020 • Vol. 5 No. 2

This magazine comes to you courtesy of MFA Oil Company, a farmer-owned cooperative providing energy solutions to customers for 90 years. We deliver high-quality propane, fuels and lubricants to farmers and other customers across an eight-state region stretching from Indiana to Kansas. *Momentum* is an information service for farm families, published by MFA Oil.

*Momentum* is published three times annually. For address corrections, story ideas or other inquiries, email [editor@mfaoil.com](mailto:editor@mfaoil.com) or call 800-366-0200.

[www.facebook.com/MFAOil](https://www.facebook.com/MFAOil)  
[www.twitter.com/MFAOil](https://www.twitter.com/MFAOil)

Address: One Ray Young Drive  
Columbia, MO 65201

**President and CEO**  
Jon Ihler

**Sr. Manager of  
Marketing Services**  
Ashley Bower

**Editor**  
Adam Buckallew

**Graphic Designer**  
Kristin Branscom

**Board of Directors**  
Marion Kertz (Chairman),  
Glen Cope, Tony Dameron,  
Monte Fisher, Scott Mitchell,  
Mike Moreland, Jake Taylor,  
Chuck Weldon

©2020 MFA Oil Company  
[www.mfaoil.com](http://www.mfaoil.com)



## Apple Ambitions

**FEW FOODS ARE AS SYNONYMOUS** with a season as the lauded caramel apple. For a handful of weeks each autumn, this timeless treat — with its classic combination of tart apple, sweet caramel and salty chopped peanuts — adorns countless grocery shelves across the country.

For the past half-century, one Washington, Mo., family has supplied this seasonal staple with year-round passion. Today, Ed and Joette Reidy oversee operations at Happy Apples, which produces millions of caramel apples each year at factories in Missouri and California.

The family's foray into confection-covered fruit literally began as an accident. Joette's parents, Steve and Doris Lochirco, owned and operated a produce company that delivered to grocers in and around Franklin County, Mo. One fall, a customer requested caramel apples.

"At first, my parents told him 'no,' that they only dealt in fresh produce," Joette says. "But the grocer kept asking, and eventually my parents said okay. The grocer ordered two cases. What happened next was our happy accident."

While the original order form read "2" cases, the carbon copy below wasn't as clear. When the shipment arrived, "2" cases had become "20."

Saddled with a perishable inventory, the Lochircos hatched a plan. Steve headed to Washington High School and set up in the parking lot, peddling caramel apples to passersby as they arrived for a Friday night football game. Soon, he was sold out.

"People asked him to come back the next Friday, and then the next Friday. Before

long, he was getting more orders than the caramel apple supplier could provide," Joette says. "So, my parents bought their first caramel apple machine and started making their own. That's how Happy Apples began in 1970."

While caramel apples may be on grocers' shelves only in the fall, producing them is a year-round proposition. The company maintains roughly 170 acres of orchards in Missouri, primarily growing Jonathan apples.

"About 70 percent of our crop is Jonathans," Ed says. "It's a tangy, tart apple that grows well in Missouri and pairs well with the sweet caramel."

In the winter while trees are dormant, they are pruned. Trees begin to bloom in early April, and by August, the first apples are ready for harvest. But not all apples are destined to be enrobed in the ooey, gooey sweet stuff.

"For caramel apples, you want an apple that's 2.25 to 2.5 inches in diameter," Ed explains. "Everything else will get bagged up to be sold as fresh apples or used for apple cider."

To meet demand, Happy Apples purchases fruit from other orchards in Missouri, Illinois and Michigan. The company's West Coast operation uses Granny Smith apples grown in California and Washington.

When apple harvest hits its stride, caramel apple production ramps up. The Missouri factory can produce roughly 350 per minute, while the California facility cranks out 190 per minute.

"We have capacity to produce 20 million caramel apples annually," Ed adds.

In addition to the traditional Happy Apple, the company offers an assortment of apples covered in everything from candy sprinkles and chocolate chips to a new flavor combo launching this year in partnership with the makers of Tajín, a popular chili-lime seasoning.



Joette and Ed Reidy manage Happy Apples, a family-run business based in Washington, Mo., that's been selling caramel-covered apples for 50 years.

"We're excited about this collaboration," Ed says. "We're mixing Tajín with our peanuts and roasting them together. It brings a new dimension of flavor. We think it will be a hit."

For caramel apple cravings that can't wait until fall, Happy Apples does offer products through its website, including an Apple of the Month club where new, off-the-wall ideas get tested.

"We once did an Elvis Happy Apple, which was peanut butter and banana, to celebrate Presley's birthday," Joette says. "It's a way to do a little research while keeping our fans engaged until they can find us on grocery store shelves again." **M**

— BY JASON JENKINS

To learn more about Happy Apples, call 800-527-7532 or visit [www.happyapples.com](http://www.happyapples.com).





# White Gold

The Erickson Family Has Filled a  
Farming Niche in Northwest Missouri

---

Photos and Story By Jason Jenkins





Most of the year, an Erickson family cornfield looks like any other around the small town of Tarkio, Mo., practically a stone's throw from the Iowa border.

In the spring, row after row of newly emerged petite plants line up in perfect picket-fence formation. Their leaves stretch toward the sky, soaking up sunlight from above while roots seek water and nutrients from below. As summer arrives, each plant tassels, releasing its pollen. The process of filling corn ears with rows of plump kernels commences. When the days shorten and the temperatures begin to fall, combines roll to gather in the harvest.

What fills the machine's grain tank is what makes an Erickson family cornfield different.

For more than 40 years, Dennis and Yolanda Erickson have raised conventional white corn in northwest Missouri for human consumption. After being processed into products such as soft, fresh tortillas or bags of crunchy chips, the corn is destined for countless dinner tables in the United States and around the world.

Today, Dennis and his son, Angelo, work together to farm 8,500 acres in Atchison County in northwest Missouri, devoting most of their ground to white corn. While their operations are technically separate, they share equipment and help each other as families do.

## WHITE CORN ON A WHIM

Born and raised on a farm in the county, Dennis says agriculture is the only career he ever truly considered. After graduating from high school, he bought his first farm on a contract from a landowner in 1972. His accumulation of acreage would continue, perhaps haphazardly at times.

"I had gone to a farm auction and bid on this 240-acre farm," Dennis recalls. "I kept raising my hand and raising my hand, and before I knew it, I bought the place for \$80,000. So, I wrote a check, but I didn't have a dime in the bank. I don't know what I was thinking, just feeling young and invincible."

He quickly secured the financing he needed and continued to build his farming



operation. A chance encounter with a young girl from Los Angeles would change his agricultural endeavors.

“I met Yoli when her family was traveling through here. Let’s just say we made eye contact and that’s all it took,” Dennis says. “After we got married in ’76, she suggested that we start raising white corn for Mexican food products. I didn’t even know there was such a thing.”

They planted a few acres, then a few more. After a couple of years, things were going really well, so Dennis decided to devote his focus to the specialty crop.

“Before long, we started shipping entire unit trains of white corn to the California markets,” he says. “We did that for the better part of 30 years. When Angelo started up, we got into exporting to South Korea. Our corn has gone to New Zealand, Europe, Canada and South Africa. Today, we market everything through Louis Dreyfus Co. in Kansas City.”

## SPECIALTY CORN CAVEATS

Raising conventional white corn isn’t much different than the genetically modified yellow corn that most farmers grow, Angelo says.

“Everything’s the same except we can’t use Roundup, and since we don’t have the Bt trait, you have to use an insecticide to control rootworm,” he says. “We used to have trouble with a second generation of corn borer, but that’s seemed to have disappeared as the genetics have changed a lot.”

Most white corn hybrids reach maturity after 114 to 115 days, which is similar to yellow corn. Test weights tend to be a little higher. Angelo says they average about 62 pounds per bushel, as compared to a standard 56-pound bushel of yellow corn. Yields are similar, says the elder Erickson, joking that he’s farmed “Iowa dirt at Missouri prices.”

“Probably 30 years ago, there was a small yield drag with the white versus the yellow, something like 5 percent,” Dennis says. “These days, we don’t see that at all. Our 10-year average is 200 bushels per acre.”

One consideration at harvest for all corn producers is moisture content in the grain. Many growers will harvest



For more than 40 years, Dennis Erickson, right, has raised conventional white corn in northwest Missouri’s Atchison County. He and his son, Angelo, left, currently farm about 8,500 acres, most of which is devoted to the specialty crop. The corn is destined to become products such as soft, fresh tortillas or bags of crunchy chips.

at higher moisture and then use commercial dryers to take the grain down to a level where it can be stored without spoilage. This isn’t an option for the Ericksons.

“If you use a dryer, it can stress-crack the kernels and lower the quality,” says Angelo, whom Progressive Farmer

magazine named to its list of America’s Best Young Farmers and Ranchers in 2017. “Our white corn has to air dry, so we don’t get in a big hurry.”

Because conventional white corn can be pollinated by other corn hybrids, cross-contamination is one of the biggest management concerns. The





TOP: Conventional white corn looks much like yellow corn — only a bit more pale. Corn yields on the Erickson farm have averaged 200 bushels per acre during the past decade. In addition to selling to domestic markets, the Ericksons have exported white corn to South Korea, New Zealand, Europe, Canada and South Africa. BOTTOM: Young conventional white corn seedlings emerge from an Erickson family field south of Tarkio, Mo. Cross-pollination with genetically modified corn hybrids is one of the largest management challenges for the crop.

Ericksons say that having their acreage concentrated helps.

“We probably are the sole producers of non-GMO corn in this area, so we feel the pressure of cross-contamination,” Dennis says. “We can grow the non-GMO corn because we have these big blocks of acres.

When I’ve got 4,000 acres sitting here kind of isolated, with those big fields protected by rivers and highways and such, I don’t have to worry about being right up against a neighbor.”

He adds that when they were exporting to South Korea, for example, the white

corn had to pass a 99.8 percent purity test. They purchased a computerized color sorter to take out kernels of cross-pollinated corn.

“This sorter has 80 chutes, each with a camera,” Dennis explains. “Kernels come down each chute, one at a time, and the camera takes a picture. If it’s too dark, it’ll eject the kernel with a puff of air. It can handle 600 bushels an hour. It’s the darnedest thing you’ve ever seen.”

### TAKING A CHANCE ON CHIPS

While the conventional white corn market does pay a premium per bushel, the dynamics have changed greatly in the past 40 years. High corn prices in 2011-2012 impacted which hybrids many producers grew, and Dennis figures there’s only about 750,000 acres of non-GMO white corn planted each year in the United States now.

“When I started, there were 40 private companies producing white seed corn. They’re all gone,” he says. “It’s not like it used to be. We might see a 30-cent premium these days. We’re in survival mode right now, just like everybody else.”

In order to capture more value, Dennis has plans to take his commodity and turn it into a finished product — tortilla chips — before it ever leaves the farmgate. In 2019, the tortilla/tostado chip segment of the snack industry was a \$5.5 billion market, according to Information Resources Inc. (IRI) of Chicago.

“There’s a huge margin in chips,” he says. “Say I sell a bushel of corn at the elevator for \$4. Or, I can take that bushel, turn it into 10-ounce bags of tortilla chips. That’s where the real money is.”

The Ericksons are actively pursuing the construction of a food processing facility in northwest Missouri. While the right opportunity hasn’t yet materialized, they have their sights set on becoming a private label chip manufacturer.

“It’s going to take a lot of work,” Dennis admits. “It’s going to take a huge investment with a lot of risk. There’s many things we can make in this plant that use white corn and yellow corn. We’ll probably go for broke, but in the end, I think it’s worth it.” **M**



# MAN — ON A — MISSION

Veteran Applies Army-Honed Skills to MFA Oil Role



By Adam Buckallew







Tom Cushing climbs out of a propane bobtail truck, unfurls its heavy hose and stretches it toward a customer's nearby tank. The way he moves it's hard to tell the man once sustained a back-breaking injury that would lead to the eventual replacement of both of his hips.

Cushing's job of managing MFA Oil's Emporia, Kan., office is not quite as exciting as his previous career with the U.S. Army, but then again, he doesn't have to worry about driving over explosives hidden in the road anymore, which is a welcome tradeoff.

For 25 years, Cushing served in the U.S. military. He was deployed six times, including assignments in war zones in Iraq and Afghanistan and hot spots like the Korean Demilitarized Zone. He held a variety of leadership roles during his tenure with the military – most of which dealt with the maintenance and repair of tactical and armored vehicles. He worked as a mechanic and motor sergeant, and during his final deployment to Iraq, he served as the senior maintenance supervisor

responsible for maintaining a fleet of over 400 vehicles for the commander of the Multi-National Forces in the Iraq War.

In September 2003, Cushing and members of his signal company brigade were sent to Ar-Ramadi, the provincial capital of Iraq's Al Anbar Governorate, which sits about 68 miles west of Baghdad, to support the Army's 82nd Airborne Division and later the Marines. As motor sergeant, Cushing, along with about 20 mechanics he oversaw, was responsible for maintaining equipment at 17 different Army installations in the region.

As part of the signal company, Cushing and his team's primary responsibility was to ensure the generators that powered the U.S. military's communications equipment and vehicles remained operational. In the blistering heat of the Arabian Desert, where temperatures could reach up to 130°F, it's not uncommon for equipment to overheat. Then there were the sandstorms.

"The sand would get everywhere, including into our equipment," Cushing recalls. "The

storms would be so bad that you could hold your hand in front of your face and not be able to see it."

Cushing was frequently exposed to the elements as he hitched rides with supply convoys, which could range from four vehicles to up to 75. Most trips were made to retrieve ammunition, parts, food and water or to make repairs at an off-site location.

It was never difficult for Cushing to catch a ride.

"I got a yes every time I asked," Cushing says. "Convoys always wanted mechanics to tag along in case a problem would arise. They looked at us much in the same way they looked at medics. We were always welcome."

As it turned out, problems were routine for the convoys. Hostile forces frequently tried to ambush U.S. troops when they made their supply runs, and their preferred method of attack was the improvised explosive device or IED. Each convoy that



traveled through the Ar-Ramadi region in 2003 to 2004 encountered an average of six IED attacks per trip.

Knowing the dangers of the road, Cushing tried to limit the movement of his mechanics as much as possible. He wanted to ensure they were all able to go home. So, he had them stay with the communications equipment, which was mostly stationary, and he would travel to them and bring whatever tools or parts they may need to do their jobs.

The trips always carried a weight of peril that could be amplified based on the circumstances. In one of the longer trips he made, Cushing traveled more than 370 miles in a Humvee with canvas doors.

“It had no armor,” Cushing says as he remembers placing sandbags on the floorboard of the vehicle to absorb the potential impact of a roadside bomb. “We had to make do with what we had.”

That trip ended without incident, but other excursions were not so fortunate. In time, Cushing’s vehicles would be hit by IED attacks on four separate occasions. The concussive blast of one explosive lifted the Humvee he was riding in eight feet off the asphalt road. All of the vehicle’s windows were shattered. Cushing and the soldiers he was riding with were bleeding from their noses and ears, but in a situation like that, there’s little time to conduct full medical exams. They “self-recovered” and moved on with their mission.

The force of the explosions took their toll on Cushing’s health and forced his retirement from the Army in 2015.

“The damage to my back and spine just kept slowly creeping up on me,” Cushing says.

Cushing’s wife of 30 years, Angel, says the breaks in his back changed the curvature of his spine, which led to wear on his hips. As Angel sat by her husband’s side as he recovered from bilateral hip replacement surgery in February, she reflected on Cushing’s devotion to the men under his command.

“Tom never considered whether his actions would keep him from reenlisting,” she wrote in a letter to the editor in support of a convention of states. “Tom got to meet a few...medics, always briefly. As soon as they walked away, he was gone. He always



Tom Cushing served in the U.S. Army for 25 years and was deployed to Iraq, Afghanistan and the Korean Demilitarized Zone before he began his career in the energy industry. Cushing now serves as plant manager for MFA Oil Company’s office in Emporia, Kan.



had a mission to finish. If one of those medics had tied him down or given him a sedative when he was in their care, he would have woken up mad and taken the triage bed with him. His mechanics were not expendable. He brought every single one of his soldiers home.”

Upon his return to civilian life, Cushing began working as a facility supervisor at Pomona State Park outside of Vassar, Kan. But it wasn’t long before he began to see similarities between the bureaucracy of his previous career and his new job with the State of Kansas. He sought out a change of scenery and took a job as a service technician with S & S Oil Company, which would be acquired by MFA Oil Company about a month after Cushing arrived.

Cushing enjoyed the relative freedom and flexibility service technicians and drivers were given to do their jobs. He worked as a

driver, hauling propane, fuel and bulk oil, before accepting a promotion to become plant manager in December 2019. He’s found the lessons he learned in the military of flexibility, adaptability and commitment to the mission have served him well in his new role.

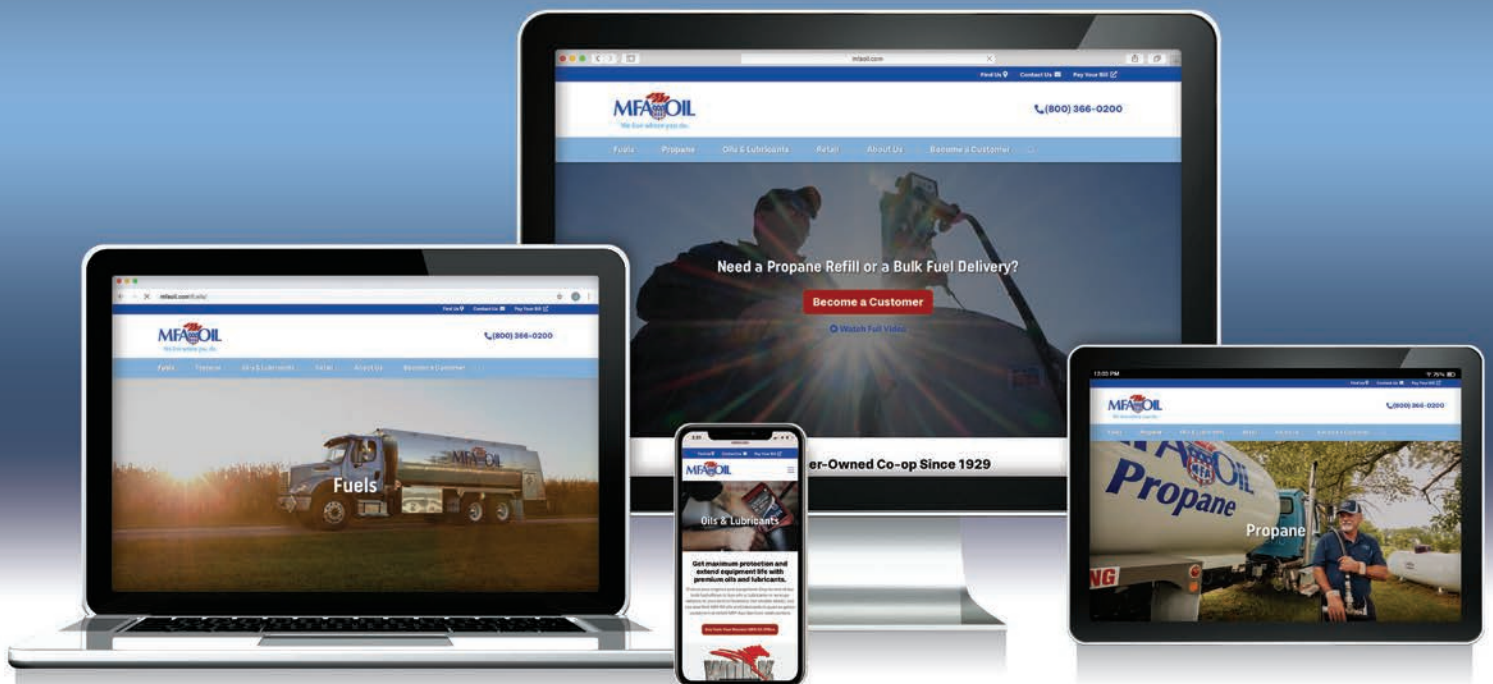
“My goal was to always try and leave a place better than how I found it,” Cushing says. “That’s how I approach everything I’ve done to this point in my career and I continue to do so.”

Cushing’s new professional priority is servicing the energy needs of his customers in east-central Kansas. To accomplish that goal, he’s working with the drivers, service technicians and customer service representatives in his area to ensure they have the support they need to get the job done. It’s his latest mission, and one he’s proud to accept. **M**



# Have you seen our new website?

Check it out!



We're excited to announce the launch of the newly redesigned MFA Oil website.

- ✓ Fast and intuitive navigation makes finding the information you need easier.
- ✓ Responsive design ensures a seamless browsing experience – no matter the device you use.
- ✓ Updated, modern design brings enhanced accessibility and convenience.



[www.mfaoil.com](http://www.mfaoil.com)





**How the  
Coronavirus Outbreak  
Upended the  
Meat Supply Chain**

By Adam Buckallew

Pork Tenderloin

Bone In Pork Chops

Fresh

Butcher-Selected

Turkey

Chicken

Chicken

Turk

Boneless Por

Raised in barns. Selected





The protein production pipeline is backed up, and the repercussions are already being felt by farmers and consumers.

Grocery store meat cases are emptier, some fast food restaurants are unable to offer standard menu items, and food prices are up across the board. In April, the overall price of meats, poultry, fish and eggs increased by 4.3 percent, with egg prices alone jumping 16.1 percent.

On the farms of livestock producers, the situation is grimmer.

When a rash of COVID-19 outbreaks forced nearly two dozen slaughterhouses to close in April, it sent a historic shockwave through the meat supply chain. Approximately 40 percent of pork and beef processing capacity had been lost by the end of April, preventing hundreds of thousands of market-ready livestock from being sent for processing.

Howard “A.V.” Roth, a pork producer from Wauzeka, Wisc., and president of the National Pork Producers Council, said in a news release that he and his fellow farmers are facing “a dire situation” and that they are “taking on water fast.” Roth said immediate aid is necessary or “a lot of hog farms will go under.”

### **Bottlenecks and Backlogs**

Brent Heid, who raises weanling pigs at Lone Tree Farms in Harrisonville, Mo., said pork producers operate under a “just-in-time” model.

The tight schedule, which begins when a sow becomes pregnant and ends when her pigs are sent to the packing plant approximately 300 days later, relies on a consistent and well-orchestrated process that has been upended by the coronavirus pandemic.

Typically, about 500,000 hogs are processed in the United States daily, but the April closures and slowdowns at packing plants meant up to 200,000 hogs per day were being stranded on farms with nowhere to be shipped.

Under normal market conditions, farmers operate under the assumption

that they will be able to send off their mature hogs to slaughter so that they will have room to raise younger pigs, said Jayson Lusk, an agricultural economist at Purdue University.

“If the finished pigs, who weigh about 280 pounds, are unable to head to the packing plant, there is no room in the barn to receive the new batch of pigs from the nursery,” Lusk explained. “If the nursery isn’t vacated, there is no room for the piglets. All the while, new piglets are being born with nowhere to go. Thus, the closure of packing plants leaves farmers with no good options.”

Heid, who raises more than 100,000 weaned pigs a year, says he has yet to run into any issues finding buyers for his piglets, but he knows “there’s a big backlog” of market-ready hogs that farmers are stuck holding.

While pigs can be fed more fiber and less fat to slow their growth, the window of time to harvest mature hogs is narrow. Once pigs reach six months of age, they can quickly grow too large for processing. Some meat plants will not accept hogs weighing more than 300 pounds. In contrast, cattlemen have more flexibility as most cattle typically mature at 18 to 22 months of age, and their growth can be delayed by switching them from grain feed to a pasture-based diet.

A May report from agricultural lender CoBank said the bottleneck in the U.S. meat and livestock supply chain has plunged “margins for cattle and hog farmers” to “multi-year lows” as the supply of livestock has far outpaced processors’ capacity to purchase them.

“As meat plants have closed, farmers are left with few options for their livestock, requiring herds to be culled,” said Will Sawyer, lead animal protein economist with CoBank, who authored the report. He noted livestock producers are “trying to stretch the supply chain like a rubber band” and “expand the life cycle of their animals as much as possible” as they wait for improvement in the meat industry’s processing capacity.





Photo courtesy of the National Pork Board, Des Moines, Iowa.

## Getting Back on Track

Meatpacking plants, where many employees often work elbow-to-elbow while cutting, deboning and trimming meat, have become coronavirus hot spots. So far, at least 30 meat plant workers and four U.S. Department of Agriculture food safety inspectors have died of COVID-19 complications and more than 10,000 across the country have been infected or exposed, according to the United Food and Commercial Workers International Union.

At least 30 plants have suspended operations since the outbreak began in March, and many more have reduced operations as meat processors have scrambled to institute new safety measures to reduce the spread of COVID-19 and keep protein supplies moving. Metal and plexiglass partitions have been installed at some plants, plants have introduced mandatory temperature checks for

employees before they can begin their shifts, personal protective equipment has been provided to workers, and companies have increased the frequency of cleaning and sanitation.

**The United States is facing an unprecedented situation, and it will take a while to return to what life was like before COVID-19.” – Will Sawyer**

As the meat industry grappled with the fallout of plant closures, John Tyson, chairman of Tyson Foods, warned the “the food supply chain is breaking” in a full-page newspaper ad that ran in some of the nation’s largest newspapers on April 26.

“We have and expect to continue to face slowdowns and temporary idling of

production facilities from team member shortages or choices we make to ensure operational safety,” Tyson said.

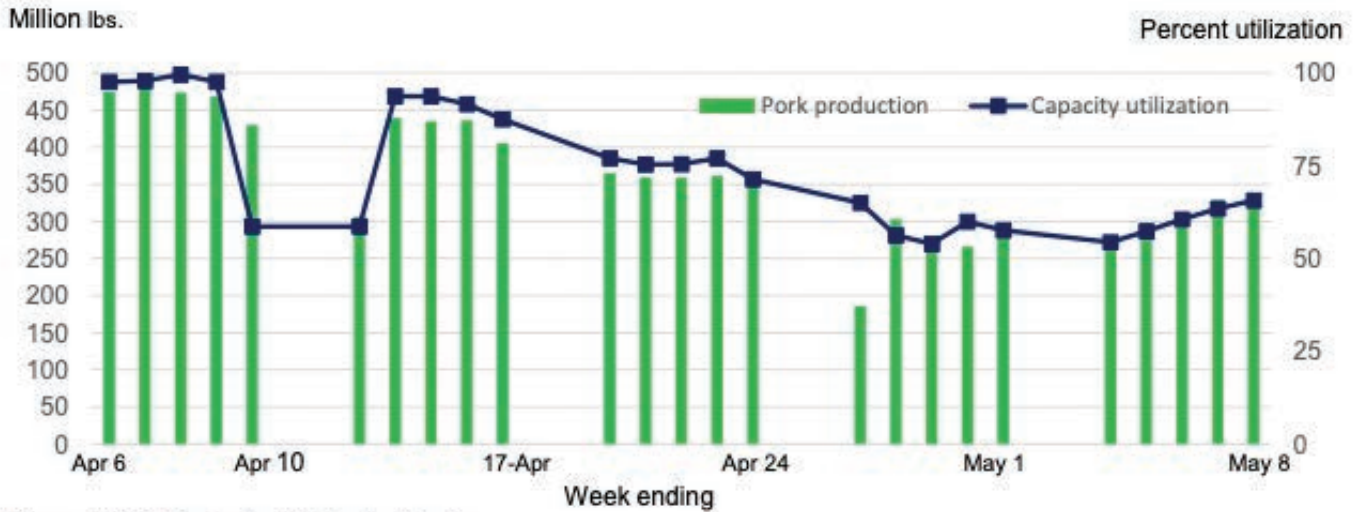
Within three days of the Tyson advertisement, President Donald Trump signed an executive order that gave Secretary of Agriculture Sonny Perdue the power to invoke the Defense Production Act to force meat companies to keep their plants open.

Perdue issued a pair of letters to state governors and leaders in the meatpacking industry that called for following the guidance of the Centers for Disease Control and Prevention and the Department of Labor’s Occupational Safety and Health Administration “with respect to any current or proposed actions that may lead to a reduction in the nation’s meat and poultry food supply.”

In his letter to the meat companies, Perdue said plants “contemplating reductions of



## Daily pork processing capacity utilization and production, April 6-May 8 2020



Source: USDA, Agricultural Marketing Service.

operations or recently closed” that have yet to establish a clear timeline for resuming operations should “submit written documentation of their operations and health and safety protocol developed based on the CDC/OSHA guidance to USDA.”

During a meeting at the White House on May 6, Perdue expressed confidence that the meatpacking closures and the meat shortages that had prompted supermarkets to put limits on fresh meat purchases may soon be coming to an end.

“I think we’ve turned the corner,” Perdue said in an Oval Office meeting that included President Trump, Vice President Mike Pence and Iowa Gov. Kim Reynolds. “We’ll see them coming back online. Obviously, because of some infected employees, they won’t be full force for a while, but we think the stores will be — you’ll see more variety and more meat cases fully supplied.”

Iowa Secretary of Agriculture Mike Naig —whose state raises more than one-third of the nation’s pigs—said the pressure to keep plants running has helped farmers in his state.

“We have less than 5,000 head of market-ready hogs that have been euthanized and disposed of in the state of Iowa,” Naig said in an interview with Harvest Public Media on May 18. He cautioned that number could still go up but said the reopened



Photo courtesy of the National Pork Board, Des Moines, Iowa.

plants may have helped pork producers avoid worst-case scenarios.

During a May 14 webinar, CoBank’s Sawyer said while April was perhaps “one of the worst months for animal producers ever,” the situation at meat processing plants has improved. He pointed to overall capacity utilization at packing plants rebounding by 15 percent to around 70 percent, but noted those rates are still well below the 95 percent capacity the industry was operating at in late March.

Sawyer said while President Trump’s executive order to reopen the closed meat plants appears to have stemmed the tide of additional plant closures and paved the

way for closed plants to reopen, attracting workers to fill the thousands of vacant positions at meat plants across the country will continue to be an issue.

In a May market outlook, USDA economists cited “continued workforce infections and in-plant social distancing measures installed to reduce virus contagion risk” as constraints that would slow the flow of meat processing for the remainder of the year.

“The United States is facing an unprecedented situation, and it will take a while to return to what life was like before COVID-19,” Sawyer said. [M](#)





# »» The Big Picture



Photo by Jennifer Waugh Photography





# Levee Repairs Progressing

## LAST SPRING'S FLOODS ALONG THE MISSOURI

River and its tributaries ravaged dozens of levee systems, and many have yet to be repaired. As of May 1, at least 28 levees that are managed by the Kansas City District of the U.S. Army Corps of Engineers remain breached, leaving surrounding communities and farmers who are still recovering from 2019 weather woes susceptible to elevated flood risks.

The National Oceanic and Atmospheric Administration forecast above-average spring rainfall for the Missouri River basin, but so far, the weather has been drier than predicted.

“Between the flows in the river today and the conditions in our reservoirs, we are in much better shape than we were the first of May a year ago,” said John Remus, who leads the U.S. Army Corps of Engineers’ Missouri River Basin Water Management Division, during a call on May 7 with elected officials and river stakeholders.

The drier-than-expected weather conditions have allowed the Corps, farmers and other organizations that maintain levee systems opportunities to speed their rate of repair.

The Corps’ Kansas City District has 66 levee systems scheduled for repairs ranging from closing breaches to fixing surface damage such as scour holes. The Corps has restored the original level of protection on 38 levees and begun contracting with construction crews to address the others. At the beginning of May, the Corps awarded 24 contracts and 16 were open for bids or pending award. Contractors had already begun moving dirt on eight of the 24 awarded contracts, and the Corps expected that number to increase daily. While the Corps anticipates many of the projects to be completed this summer and fall, it says some won’t be finished for at least another year or two.

Holt County farmer Morris Heitman said federal agencies are cooperating to repair levees, but progress is slow. Heitman serves on the Missouri River Flood Task Force Levee Repair Working Group.

In Holt County, a mishmash of 17 individual levee districts makes recovery complicated and time-consuming.

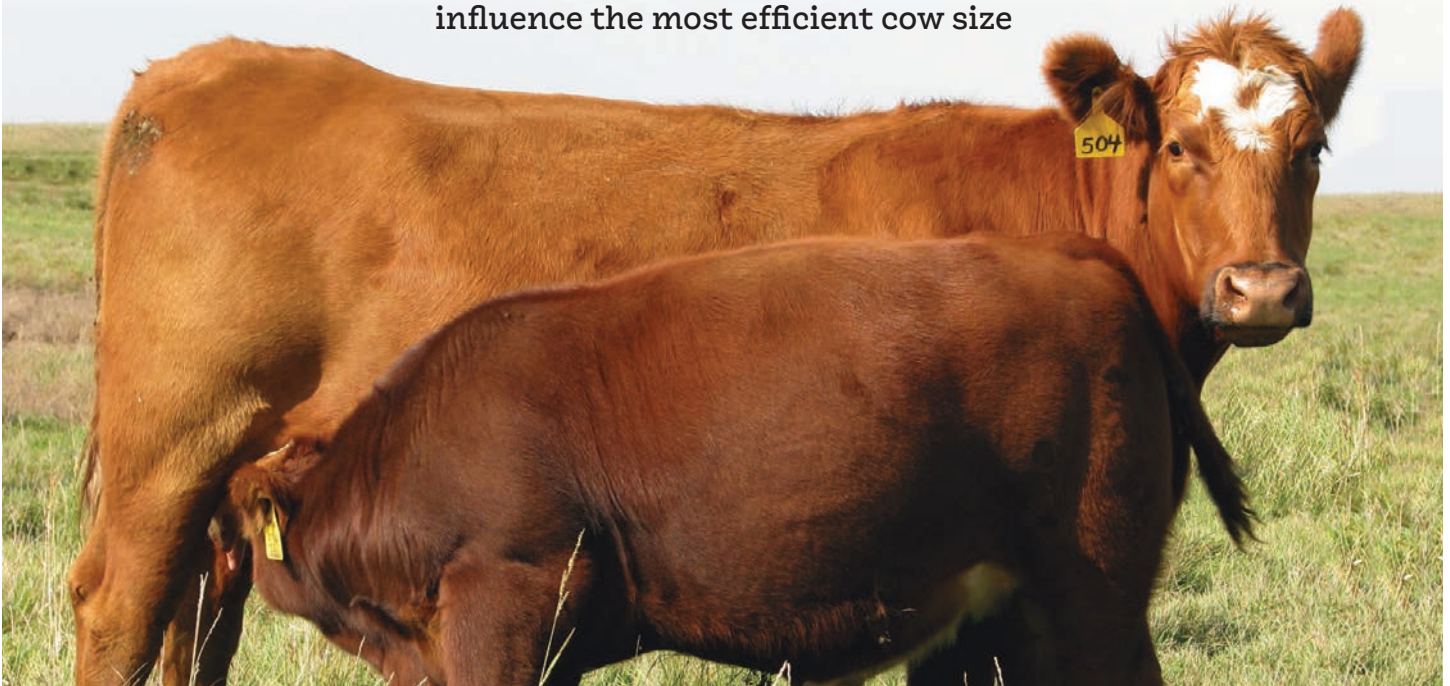
The Federal Emergency Management Agency, the Army Corps of Engineers, the state of Missouri, the USDA Natural Resources Conservation Service and local levee districts all work to repair levees.

“We’re trying to dance with different agencies,” Heitman said. “All these agencies have their own requirements and parameters, and we’re trying to coordinate those to build a secure system against the river.” **M**



# TARGETING OPTIMUM COW SIZE

K-State beef cattle specialists discuss factors that influence the most efficient cow size



Genetics, feed resources and calf marketing windows are just some of the influencing factors that determine the optimum size for cows to grow, according to the Kansas State University Beef Cattle Institute's team of experts.

Defining the optimum cow size was a discussion topic on the recent Cattle Chat podcast published by the Institute.

"That is a really difficult question to answer because for each operation, the optimum cow size will be slightly different," said Bob Weaber, beef specialist with K-State Research and Extension.

To help answer that question, Weaber and veterinarian Bob Larson worked with former graduate student Dustin Ahearn to define what the ideal cow size should be.

"Our results showed that in eastern Kansas, a 1,300- to 1,400-pound cow was optimum in that she was able to produce a moderate to high level of milk in an environment where all her nutritional requirements were met," Weaber said. "The next phase of the study will be to see what happens if the cow's nutritional support is limited."

"One good way for a cow-calf producer to gauge economic success is to determine

how much beef can they produce per acre," said KC Olson, a K-State range beef cattle nutrition expert who joined the recent podcast. He added that the average return for an extra 100 pounds of cow weight was just five to seven pounds of additional weight of the calf at weaning.

"The cost of the additional maintenance for 100 pounds of a cow's weight far exceeds the value the heavier calf brings," Olson said.

K-State veterinarian Brad White said producers need to consider the stocking density of the pastures and the timing of calving, which influences the calf marketing windows.

As an example, Olson prefers to calve in May and June because when his cows are at peak lactation, they have a plentiful source of forage for grazing.

"The most expensive time to feed a cow is from calving to peak lactation, which happens 4-6 weeks following calving," Olson said. "So that nutritional debt can be serviced by a renewable resource — forage."

The timing of calving also dictates the marketing opportunities for the calves.

"I don't care what the calf size is at weaning because I retain ownership in them through at least yearling age and sometimes through the finishing phase," Olson said.

The podcast team offered seven tips for determining the optimum cow size:

- Consider calf marketing options.
- Assess the availability of economically efficient supplemental feed.
- Know the resource requirements of your cows.
- Evaluate when you plan to wean the calves.
- Understand the calving time relative to available grass in the region.
- Determine the number of days available for grazing without supplementation.
- Optimize per-acre productivity.

The bottom line is that each producer needs to look at their system and make a determination on what is the most economical for them, White said.

"There is no one size fits all when deciding the optimum cow size," White said. "Rather, producers need to consider many factors when making that determination for their operations." **M**

— BY LISA MOSER,  
K-STATE RESEARCH AND EXTENSION



# DRIVE YOUR SUMMER WITH TOP TIER™ GASOLINE

TOP TIER™ is the premier standard for gasoline, recommended by the world's top automakers. With higher levels of detergent additives, TOP TIER™ helps reduce engine deposits and exhaust emissions, enhancing performance and optimizing fuel economy.



Try TOP TIER™ today, available in all grades of gasoline from MFA Oil. Your engine will thank you.

**Petro-Card**  
**24**

**MFA OIL**  
**Bulk Fuels**

**Break**  
**TIME**



# EMBRACING THE ART OF TEACHING AG

Life changed in spring 2020. People stopped going to work, the movies and restaurants. They even stopped hanging out together. It was literally a matter of life and death.

But ag workers kept working. You don't get days off on a farm.

That includes school farms, like the one run by KaCee James, an ag teacher at Jayhawk-Linn High School in Mound City, Kan., about 80 miles south of Kansas City. The lambs still had to be fed, their bedding changed and the pigpens mucked out.

"Yes, school is shut down in Kansas," James said from her home in Mound City. "For the time being, I have three students taking care of the sheep and pigs. It's not ideal since it's a cooperative and everyone should be contributing, but we are trying to limit the number of people at the barn."

In the finest ag tradition, her dad helped.

"I don't have my usual (pet German) Shepard in crime here to work lambs with me," she wrote in a recent social media post, "so Dad came out of sheep retirement to help me at the barn today. School farms only work when you have school."

Growing up on a cattle and sheep farm in Princeton, Kan., James knew she wanted a career in ag. She went to Kansas State University after high school, where she studied agricultural communications, convinced she was headed for an ag lobbying career.

One of her mentors saw things differently and urged her to give K-State's Ag Ed Club a whirl. She did, and never looked back.

After graduation, she first joined Doniphan (Kan.) West High School as an ag teacher, then Hiawatha (Kan.) High School before landing her current job at Jayhawk-Linn. There, she juggles agricultural exploration, agri-science, animal science, plant and soil science, advanced animal science and agricultural leadership for grades 7 through 12; manages the greenhouse and the school's livestock cooperative barn, caring for six ewes, seven lambs and 17 pigs; carts students and the livestock to shows far and near; and serves as statewide FFA advisor. She's also the state's national FFA organization's teacher ambassador.



ABOVE: KaCee James, ag education instructor at Jayhawk-Linn High School, Mound City, Kan., and the state's national FFA organization teacher ambassador, with her students at the Kansas FFA State Convention, Kansas State University, Manhattan. LEFT: James and her students raise lambs like Patrick Maaaa-homes, born January 19, 2020, the day the Chiefs won the AFC Championship and advanced to their first Super Bowl in half a century.

"Being an ag teacher was never on my radar in high school," she confessed. "I honestly didn't think I was skilled enough to teach such a wide variety of subjects." That's clearly not been the case. She's been honored as both the Kansas Association of Agricultural Educators' Outstanding Teacher and its Young Teacher of the Year, proving that her mentor was right.

What makes her such a great teacher?

Kelley Thompson, public works office manager for the city of Ottawa, Kan., says James's enthusiasm and work ethic born of myriad farm early mornings and late nights helped. As her mother, Kelley is admittedly not the most unbiased observer, but adds:

"I also think it's how much she cares about her kids. She's really passionate, always looking for new ways to teach them . . . She's taken them to stock shows as far away as Texas, to visit manufacturers, you name it, to keep it interesting and relevant."

Manufacturers?

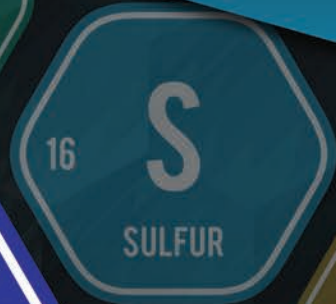
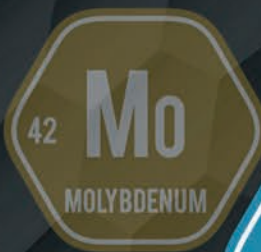
Her students typically understand the big picture of agriculture, James says, "but it's the science behind it that they don't know that I enjoy teaching the most. For example, what are those tanks that farmers pull behind the tractor in the field? What are the specific diseases we vaccinate for in cattle? What determines commodity prices, and how do farmers sell their products in a global economy?"

Armed with answers to questions like these, James's students will be better prepared for whatever the future has in store. **M**

— BY NEAL FANDEK

Agriculture teachers are vital to developing their students' understanding and appreciation for the agricultural industry. In recognition of their important role, MFA Oil is profiling the amazing work ag teachers do to prepare the next generation of leaders in agriculture.





# Trend-B

## Trend toward better yields

Every year about this time, corn health becomes a concern—and for good reason. It’s rare that we have a year when diseases aren’t present. Timely fungicide applications can knock out those diseases and protect the crop’s yield potential.

Push yield even further by applying new **Gold Advantage™ Trend-B** slow-release nitrogen with the fungicide at tasseling. That’s when corn is rapidly using nitrogen for growth, and Trend-B delivers targeted foliar nutrition when it’s needed the most. Trend-B also includes boron, which is important for reproductive functions in corn but is often deficient in Midwest soils.

Proper timing is critical to get the most out of these applications. Talk with your Crop-Trak® consultant or other MFA experts about the benefits of combining fungicides with Trend-B foliar nutrition.



### Boost plant health and increase yield with Trend-B.

Contact your MFA Agri Services for additional information, or call (573) 874-5111.



MADE FOR AGRICULTURE®



# A Safe Haven for Kids

JUST NORTH OF HARRISBURG, MO., THERE'S A HOME that serves as a refuge for children who have been mistreated or neglected. Coyote Hill Christian Children's Home offers children a safe, loving home environment and an opportunity for stability.

"The kids we serve have been removed from their homes for some form of abuse or neglect," says Kari Hopkins, chief development officer for Coyote Hill. "They need a place to stay, and most kids will be with us for at least a year or two."

Coyote Hill was founded in 1991 by Larry and Cathy McDaniel after the couple had become foster parents and observed the great need that was being unmet in mid-Missouri for foster care. The children's home has served more than 500 kids in its 29 years of operation.

"Many of these kids grow up and continue to live in Columbia and Boone County," Hopkins says. "We believe that whatever we invest in a child today will have a generational impact, and we can make a positive difference for our community with each child we serve."

What started as one large foster home has grown to become a children's home neighborhood. There are now five homes on the property and each is equipped to house up to eight children and a set of foster parents, including the Wright Home, which was Coyote Hill's first handicap accessible residence. Coyote Hill is in the process of extensive renovations to the Wright Home, and the MFA Oil Foundation recently awarded a grant for \$2,000 that will help refurbish the bedrooms with new beds, dressers and desks for each child.

"All of our kids come to us out of poverty and many haven't had their own beds before," Hopkins says. "They may have slept in one bed with other family members or on couches, and this is their first experience having their own bed. We teach them how to make their bed and other life skills."

Giving each child his or her own place to do homework, store their belongings and sleep is important in demonstrating that each child has value, Hopkins says.

"Our mission is to help these kids be kids again," she says. "We are here to help them heal from the trauma they have experienced, learn new life skills and prepare them to be successful when they eventually leave Coyote Hill."

In addition to housing children in need, Coyote Hill has recently begun a community foster care training program. On average it takes four to six months to train and license a new foster family. Coyote Hill has already licensed 18 families through its program and is in the process of training 18 more. To learn more about Coyote Hill, visit [CoyoteHill.org](http://CoyoteHill.org). **M**



Coyote Hill Christian Children's Home provides kids with a safe place to live and grow. A grant from the MFA Oil Foundation will help Coyote Hill refurbish its Wright Home (bottom).

**The MFA Oil Foundation provides cash grants to nonprofit organizations that are working to improve communities where MFA Oil has a significant concentration of members and employees. In March, the foundation approved more than \$70,000 in grants to 8 different organizations.**

Missouri Farmers Care – Jefferson City, Mo.

Community Foundation – Perryville, Mo.

Trinity Lutheran School – Alma, Mo.

St. Joseph Catholic Preschool – Salisbury, Mo.

Gallatin R-V – Gallatin, Mo.

Coyote Hill Christian Children's Home – Harrisburg, Mo.

Oats, Inc. – Columbia, Mo.

Foundation for Soy Innovation – Jefferson City, Mo.





### Big O Tires Opens Lebanon Store Minutes Before Storm Rips Roof Off the Building

As Big O Tires opened its store at 1701 W Elm St. in Lebanon, Mo., for the first time on Monday, May 4, store manager Colby Shadrick stepped outside to commemorate the occasion by taking a photo just before 2 p.m. The brand-new store, which has seven automotive service bays, and its gleaming signage stood out against the backdrop of an overcast sky.

Within 19 minutes, Shadrick would be outside taking another photo of the store's exterior, only this time it would be to document the carnage of a windstorm with gusts of 90 miles per hour that ripped through southwest Lebanon.

Ed Harper, MFA Oil's vice president of retail automotive, was in the store's lobby with Shadrick and Charlie Alexander, director of Big O Tires operations, when the storm hit the building. He noticed the showroom's ceiling tiles began to flex and lift and then turned to see the store's crew running in from the service bays.

"They were running toward the lobby and shouting that half of our roof had been torn off," Harper recalled.

As a barrage of rain and hail fell upon the once-covered automotive service area, Shadrick and Alexander noticed the pressure from the storm was starting to pull the door to the showroom open. They worked to hold it shut while other employees guided the customers who were present into an interior office area for shelter.

The storm and its straight-line winds passed quickly but left a trail of destruction in its wake. Powerline poles were snapped, a church's steeple was toppled, small planes at the local airport were flipped over, boats at the Tracker manufacturing facility had been thrown across the interstate and a nearby truck plaza had its cinder block walls blown down.

"There was no warning, no sirens," Shadrick said. "Luckily, no one was hurt. We lost about 45 feet of our roof and our power, but that's repairable."

The store in Lebanon is the 21st that is owned and operated by MFA Petroleum Company, a subsidiary of MFA Oil. Construction is underway on another Big O Tires store in Sedalia that is expected to open later this summer.

MFA Oil has owned and managed Big O Tires franchise stores since 1998.



### MFA Oil Adds Petro-Card 24, New Storage Capacity in Greene County


MFA Oil has strengthened its operations in southwest Greene County, Mo. In May, the company completed installation of a new Petro-Card 24 facility, added bulk fuel storage tanks and expanded its propane storage capacity at a site positioned on the outskirts of Springfield, Mo.

The new location at 6229 W Highway 60 in Brookline, Mo., now has red diesel, clear diesel and gasoline available to the public for purchase.

"We've been looking for a spot along the Highway 60 corridor where we could build a Petro-Card 24 for our customers," says Andy Hays, district manager for the company's southwest district. "This site meets that purpose and will also serve as a great location for our drivers to refill their fuel and propane delivery trucks."

Each of the three 20,000-gallon bulk fuel tanks that were placed at the location are connected to a fuel rack that will allow company drivers to refill from the ground rather than climbing on top of their trucks.

"Filling up from the ground is safer for our drivers and should also save them time as the new equipment has faster pumping rates, which will help us get to our customers more efficiently," Hays says. "We also doubled our propane storage capacity at this location."

Hays says MFA Oil is evaluating additional locations in the company's southwest district where it would make sense to add Petro-Card 24 facilities. 



# The Day the Crude Futures Market Broke

## ON APRIL 20, THE ENERGY MARKET

did something we've never seen before. Futures on the New York Mercantile Exchange for May contracts of West Texas intermediate crude oil, or WTI, traded to a low of -\$40.32 per barrel and settled at -\$37.63 per barrel on the same day they were set to expire.

How did this happen? It was a unique situation brought on by three main factors: the way crude oil futures are traded 1,000 barrels at a time, worldwide shutdowns to prevent the spread of the coronavirus and the escalating price war that was being waged between Russia and Saudi Arabia. These three situations contributed to a flood of crude supply that was exacerbated by enormous demand destruction as people around the world were ordered to hunker down in their homes.

On the final day to trade May crude futures, traders were scrambling to sell their positions because if they kept them, they would be required to take physical possession of their oil in Cushing, Okla., where storage space was sold out. There were many speculators who were long on these May contracts, and it appears not all of them were fully aware of the finer details. These traders essentially got caught in a precarious situation where they were unprepared to take these futures contract to delivery. In other words, they had no choice but to find a way out.

The clock was ticking as these traders were forced to sell these contracts. They say that everyone has a price, and we found out what it took to find someone willing to take on these contracts and store the oil that came with them. Rather than pay to store the crude themselves, the traders decided it would be cheaper in the end to pay someone



else to take the oil. Thus, we saw the negative crude prices.

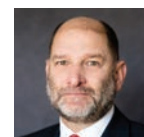
The desperation of offloading these contracts led to an extreme situation. It seems almost crazy to think that someone got paid \$40 per barrel to take that crude oil, and 20 days later it was worth \$34—a nice gain of \$74 per barrel. Whether the market should be able to trade negative and whether the CME Group, which oversees crude oil commodity trading, did its job correctly are valid questions.

The uproar around this situation has already led to changes. Many trading companies now require certain clients to be out of the front month of contracts well in advance of the expiration date. A few of the exchange traded funds that were caught up in this situation have gone out of business or closed, and others have changed their rules to avoid falling into the same trouble again. This event caused some real pain from some trading companies and investors.

I've heard it said the use of the word "unprecedented" these past few months has been unprecedented. I agree it's probably

been overused, but it's also the truth. The modern world has never seen anything like what we have recently experienced, and the long-term implications are still not fully known. The bottom line for the energy market is that it will be a long, slow grind before we see the markets rebalance and some semblance of normalcy.

Unless we get a second wave of the virus that is worse than the first, I don't expect we will see anything like the hard sell-off we saw in April for quite some time. U.S. crude oil production has fallen by a greater amount and faster than anyone expected it could happen. This will affect the energy markets both in the near-term and what we see in the future. Companies have shut down many oil wells and cut exploration budgets. As demand gradually rebuilds, I expect it will outrun production eventually and set the table for the next run-up in prices on the other end of this extreme situation. **M**



» **Tim Danze**  
is the hedging manager  
for MFA Oil.





**THEY DON'T CALL IT  
WORK HORSE FOR NOTHING.**



**Run with the oil too proud to quit  
before the job is done.**

Pouring the latest technology, advanced additives and 90-plus years of expertise into every quart, Work Horse® begins by exceeding original equipment specs. We follow up with unrivaled customer support in testing and maintenance. The result: A new breed of oil powered by the same work ethic that pushes you.



[WorkHorseLubes.com](http://WorkHorseLubes.com)





P.O. Box 519  
Columbia, MO 65205

# — LOCK IN — *Sweet Savings*

**Take advantage of low propane  
prices now, before they melt away!**

Lock in your price for winter, choose the payment option most convenient for you – 100% Pre-Buy, 4-Pay or Budget – and we'll do the rest. **Plus, we'll monitor your tank to ensure you don't run out of propane, or your next 100 gallons are FREE.\***

## ..... **3 WAYS TO SAVE** .....

- **100% Pre-Buy:** Pay 100% when you sign up.
- **4-Pay:** Pay 25% down and 25% per month for 3 months.
- **Budget Billing:** Make a down payment, then divide the balance over the remaining months through April 2021.

Contract prices are subject to change until contract is signed. Credit approval may be required.

  
**Propane**  
[keepwarm.com](http://keepwarm.com)



\*Keep Warm Guarantee only applies to home heat customers whose primary heating source is propane. Customers must have a signed propane contract with MFA Oil, be set up for Auto-Fill delivery, and the account must remain in good standing.