



TO THE
C O R E

2018 ANNUAL REPORT

NOBLE RESEARCH INSTITUTE

OUR CORE VALUES



The individual farmer or landowner must of necessity be the most powerful agent in conserving and improving our soil.

We believe strongly that through his individualized efforts, our farm economy and the economy of our entire locality can be raised and maintained at a much higher level.”

—THE FIRST THREE YEARS
A publication of Noble Research Institute
(then called Noble Foundation), 1948



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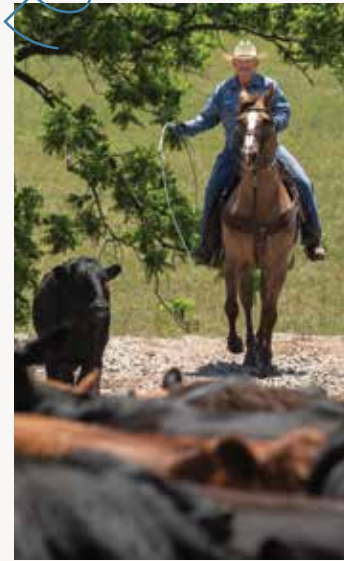
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TO THE
CORE

INTRODUCTION

Great acts of service begin with a belief. While ideas tumble from the mind like raindrops, beliefs spring from the heart. They call us to selfless pursuits. They lead us to a devotion that shapes a better future, not only for ourselves but for everyone. Lloyd Noble witnessed the devastation imposed on his home state by the great Dust Bowl. His faith in the virtues and necessity of agriculture spurred him to **PUT WORDS INTO ACTION.**

Noble believed that to reawaken the region's stalled economic engine meant reinvigorating the soil. Healthy soil produces food and fiber, and these products are the foundation of commerce and community. A conservationist was born. He began to speak directly to the soul of a state. The land and the soil, he said, were society's most treasured resources. Protect. Nurture. Restore. There was no mandate, no legal requirement for an oilman to carry the stewardship banner. But Noble understood that every individual — no matter their station or position — was called to **BE RESPONSIBLE FOR TOMORROW.**

Noble's convictions took form in bricks and mortar with a new organization dedicated to solving agriculture's greatest challenges. Noble Research Institute (originally named The Samuel Roberts Noble Foundation) emerged not as an intellectual pursuit, rather the personification of a neighbor with rolled sleeves and an eagerness to help. Motivated by a vision bigger than himself, the philanthropist would never see the hundreds of thousands of acres transformed by his generosity, but he knew to find success one must **BEGIN WITH HUMILITY.**

So our first steps were small but bold. Researchers ignited discovery and sought scientific answers to questions that plagued producers. Plant breeders developed hardier varieties, improving efficiency and yield. Educational programs presented new ideas that spurred advancement in thinking and practice. Be it yesteryear or today, we aim to walk side by side with ranchers because we know strength and success comes when you **BUILD TOGETHER.**

Each generation of rancher inevitably confronts challenges both familiar and unforeseen. They face shifting markets, economic uncertainty, natural calamity, pest and pestilence.

But they do not face it alone. We walk the dusty road with them. Help establish a plan with them. Run the numbers with them. Pray for rain with them. Deposit sweat equity into their land. Then celebrate as a lifeless pasture turns to an emerald sea. As hope triumphs over circumstances, cementing one indelible truth about this relationship: We will **NEVER FEAR CHALLENGES.**

We serve the rancher, and the rancher serves the land. One team unified by a common belief that stewardship better the world far beyond the fencerow. Healthy soil provides food, feed and fiber for society at large. It supports wildlife habitats, filters water and offers the single greatest reservoir for storing atmospheric carbon. When the land receives intentional stewardship, conservation turns into regeneration wherein the land becomes healthier. Ranchers are the guardians of this process. They are the standard-bearers of a movement that works with the natural cycles of the rangeland to deliver solutions to society's most pressing issues. These forerunners continually seek innovative ways to work with nature. They defy the status quo. They **LEAD WITH PASSION.**

In every task, be it small or significant, these ranchers strive for excellence. They build from a foundation of respect, honoring each other's contribution and seeking to better mankind through the work of their hands. Likewise, the men and women of Noble look for opportunities to be exceptional in the laboratory, the classroom and the field. We come from all corners of the earth, united by a vision for agriculture. Our differences bring new perspectives. Our work is bound by an integrity that requires — in all things — that we **BE NOBLE.**

The bond between ranchers and Noble has been forged through time and by fidelity to shared values. Responsibility. Action. Humility. Fearlessness. Togetherness. Leadership. Integrity. These are not mere words; they are the compass by which we chart a course, the guiding light for our decisions, and the yardstick by which we measure success. The pages of this annual report, therefore, tell two interconnected stories rooted in these mutual beliefs: one of a rancher who embodies these principles and the second of an organization dedicated to serving them. This is what they believe. This is what we believe. This is who we are: **TO THE CORE. ■**



BELIEFS IN
ACTION

P R E S I D E N T ' S M E S S A G E

Lloyd Noble knew what he believed in. He articulated the principles that defined him but understood that words rang hollow without action. He spoke of the resolve necessary to achieve success in one's occupation. Then he lived it. As a young entrepreneur in the oil fields of the early 20th century, he often left the boardroom to labor in the field. He slept at his companies' drilling sites and drove the pipe wagons to learn more about the day-to-day operations. He invested in technology and implemented untested idea. He revolutionized the oil and energy sector, not through his words, but through his vision and accompanying daily deeds.

He spoke of patriotism and the fundamental right of freedom. Then he lived it. When England stood on the brink of an energy crisis during World War II, Noble was the centerpiece of a secret mission that drilled for oil within the famed Sherwood Forest. His action in the face of others' inaction resulted in an energy supply that helped alleviate one of the more significant pressures on the British government. Noble did not take a penny of compensation for this costly and heroic act. He did what he knew was right, not just for his country, but for the freedom of those he would never meet.

More than all, Noble spoke about the importance of the land and soil. A survivor of the Dust Bowl, he rallied for the urgent preservation of soil. He outlined a practical need to conserve this exhaustible resource and a moral obligation to protect it for future generations. Then he lived it. Noble took his own resources and established Noble Research Institute, a permanent resource of research and the dissemination of knowledge and skills for agriculture.

We are blessed to be part of an organization founded by a man who took the time to describe and clarify his beliefs. Because of our founder, those of us at Noble Research Institute know what we believe in. We have been endowed with a set of core values — collaboration and humility, integrity and leadership — that take shape and form as we put them into practice. These simple words become the blueprint of our deeds.

We believe — as our founder did — that the soil and the land are our nation's most valuable assets and that both require intentional management.

We believe focusing on land stewardship in beef cattle production with producer profitability offers us the greatest opportunity to impact our environment, agriculture and the men and women who steward these land and animal resources. The single largest use of land in the United States — roughly 650 million acres — is pasture and rangeland. About 85% of this land is unsuitable to grow anything but cattle.

We believe managing these acres is no less critical than managing land for fruits and vegetables. Properly managed grazing lands are less susceptible to erosion, hold water to sustain through periods of drought as well as reduce runoff, enable productive plant growth, require less fertilizer and other inputs, positively impact water quality, and sequester atmospheric carbon.

We believe beef cattle play a critical role in soil health. The plants — grasses, legumes and forbs — found in our grasslands use the sun's energy to move carbon into the soil through managed grazing, thus improving the soil. Cattle convert these non-human food plants into meat, recycle nutrients through manure distribution and assist us in managing our nation's grasslands.

We believe producers must make a living from the land. Profitability is the practical reality of any profession, and agriculture is no different. Few can remain in a profession that consistently costs more than it returns. If ranchers cannot make enough to maintain their operations, they can lose their livelihood, their legacy and their children's inheritance. More so, producers who can barely sustain their operations — like many of us in other professions — often sacrifice long-term (land stewardship) practices for short-term returns.

We believe in each of these principles, and we give life to them through our chief pursuits.

Everything begins with the farmer and rancher. Noble has built generational relationships with producers through our consultation, interaction and friendship. We work to provide them with the knowledge and skills to rehabilitate their entire system: soils, plant, animal, water and economics. We tailor recommendations to fit their particular operation because there is no one-size-fits-all management plan. Most importantly, we answer their questions, provide encouragement and help them see what may lie ahead. Our guidance is not just based on experiences but tested research.

The questions our nation's ranchers ask and the challenges they face serve as the starting point for our research. Noble's interconnected research system spans from the laboratory to the field. We breed grazing plants for cattle and soil benefit, improved timing of production, and changing climates. Through our own research and demonstration ranches, we practice what we teach and seek to improve recognized best management practices through experimentation and the introduction of innovations. This is not just research for research's sake. Our research is designed to transform the status quo. Then we offer a competency-based educational program in which we convey practical skills to producers of all ages and experience levels.

At the end of the day, we seek to provide a nation of farmers and ranchers with data-driven information to make knowledgeable decisions for their operations, mitigate risk and give them the best opportunity to succeed. These are our beliefs. In action.

Sincerely,

Steve Rhines
President and CEO



OUR CORE VALUES

BEGIN WITH
HUMILITY

Put others first. Shift your focus to those around you, and help them find success.

FOR ANOTHER'S BENEFIT

Greatness often begins small, with a recognition that there is much to learn and that life is rarely about the person in the mirror. It's about appreciating the past and planting seeds for the future. It's about offering a hand to one walking in need. It's seeing the success of another, knowing that the good life begins with humility.



BEGIN WITH HUMILITY



We knew we needed help, and thankfully Noble was able to come to our rescue. We knew the basics, but so much had changed in 30 years. Without Eddie, we probably would have floundered.”

—JOE DOBSON

GETTING BACK TO CATTLE

Joe and Jeannie Dobson return to their roots to enjoy the family land after years of city life.

Joe Dobson remembers sleeping on a cot outside his childhood home during hot Oklahoma summers through the 1950s. The boy would wake to the nudging of his horse, Thunder, moments before jumping on her bareback. The palomino would then dart to the barn for her breakfast, with Dobson clutching her mane.

“She never did give me a ride back to the house,” laughs Dobson near the spot where the memory was made, the house still standing in the background. He and his wife, Jeannie, recount decades of trials and joys on the land east of Pauls Valley where Dobson grew up.



RIGHT
Joe Dobson checks cattle during a morning drive through the pasture.

There had been the Jersey cow he milked as a boy and the itchy job of hand-sacking homegrown oats for the horses. In the middle of a nearby field stands a lone post. It's the last remnant of the original corral built by Dobson's father, who purchased the land in the mid-1930s to build a cow-calf operation.

Then, in the 1970s, anaplasmosis hit the ranch. The deadly blood disease spread among the cattle, and they lost the entire herd.

Left with a blank slate, Dobson's father asked his son if he wanted to take over. Dobson and Jeannie were already living in Mustang, Oklahoma, more than 70 miles away. Though they made the trip to help out every weekend, they weren't looking to get into the cattle business full-time and agreed that Dobson's father should lease the grazing lands to a neighbor.

In the city, Dobson climbed the ranks at his office job before branching out to start his own rock-hauling business while Jeannie decorated homes across town. They often found themselves taking their daughter, and eventually grandchildren, to the farm, where Dobson's parents lived until his father's death in 1975 and mother's in 2000.

“I was young and felt like there were better opportunities in the city,” Dobson says, “but my heart never left here.”

Dobson was ready to return to a more active role on the acreage by the time the neighbor decided to retire in 2005. He and Jeannie began making the weekly trip from Mustang again. Only this time, they didn't have the elder Dobson's counsel. And an unruly wilderness was growing up around falling fences.

After about two years of trying to revive the land,

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BACK TO THE BEGINNING

Joe and Jeannie Dobson stand in front of Joe's childhood home east of Pauls Valley, Oklahoma. After careers in the Oklahoma City area, the Dobsons have returned to manage the land Joe's father purchased in the mid-1930s. The couple enjoy working with the cattle, watching the wildlife, and making sure the land remains healthy and productive for generations to come.





BEGIN WITH HUMILITY



ABOVE
Joe and Jeannie Dobson fill feed bunks for their grazing cattle.

BELOW
Cattle hydrate while crossing the creek to greener pastures. The creek, which runs through the property, is one of the Dobsons' favorite feature of their land.



Dobson and his grandson, Cole, went to Roff, Oklahoma, to buy hay. There, they met Charles Rohla, Ph.D., who manages pecan and specialty agriculture activities at Noble Research Institute. Rohla encouraged Dobson to give Noble a call, which led him to Eddie Funderburg, Ed.D., senior soils and crops consultant.

"We knew we needed help, and thankfully Noble was able to come to our rescue," Dobson says. "We knew the basics, but so much had changed in 30 years. Without Eddie, we probably would have floundered."

First, Funderburg helped the Dobsons identify and control the major weed invading the land: milk thistle. Then, once they decided to raise stocker calves instead of managing a cow herd like Dobson's father, Funderburg advised them as they planted wheat fields. He encouraged them to sow ryegrass into the wheat to extend the grazing season and taught them how to take soil samples so they would fertilize only as much as needed. He also put the couple in contact with someone who could bring them up to speed on vac-

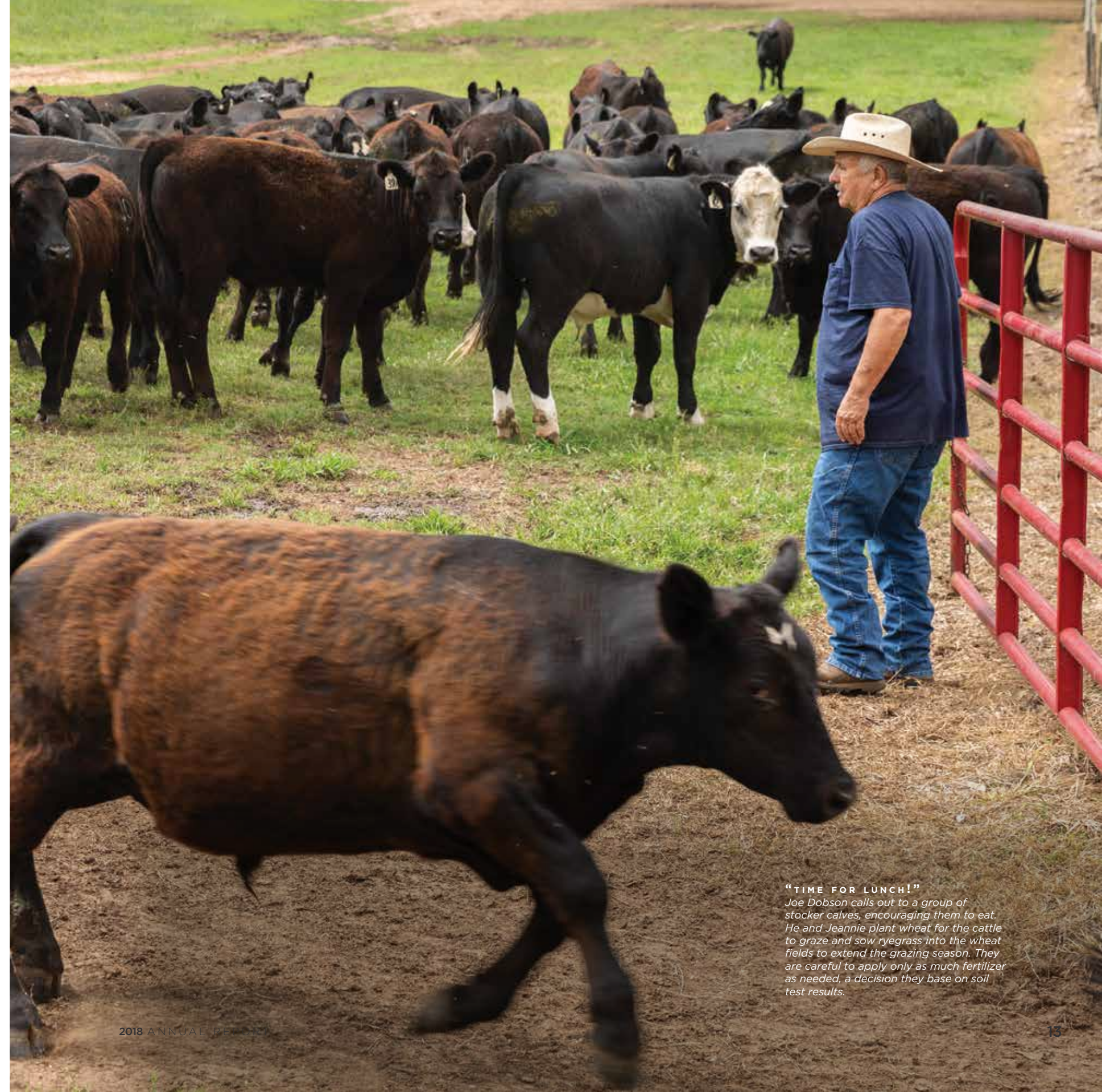
ination and cattle handling protocols.

"Joe is the kind of guy who is not afraid to ask questions, and he has one of the most contagious positive attitudes," says Funderburg, who once stood alongside Dobson in a wheat field swarming with armyworms. The farmer simply asked what he could do and punctuated the conversation with, "Life is good."

"He seems to set a goal of being the nicest guy in the world every morning when he wakes up," Funderburg adds.

Before the sun goes down, Dobson and Jeannie grab a Coke and drive around the fields each night they spend on the farm. They enjoy the sounds of cattle munching and talk to the inquisitive ones that come to stick their noses through the truck's rolled-down windows. They admire the trees and wildlife, like the heron that Jeannie has named Harry.

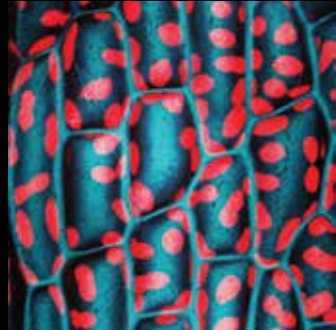
"It's been a journey getting back to the cattle, but we enjoy it," Dobson says. "We're only going to be here for a blink of an eye, so enjoy life and do right by people and the land." ■



"TIME FOR LUNCH!"
Joe Dobson calls out to a group of stocker calves, encouraging them to eat. He and Jeannie plant wheat for the cattle to graze and sow ryegrass into the wheat fields to extend the grazing season. They are careful to apply only as much fertilizer as needed, a decision they base on soil test results.



BEGIN WITH HUMILITY



Plant cell walls (blue) and chloroplasts (red) seen beneath a microscope as part of root research

IT'S THE LITTLE THINGS

Maria Monteros, Ph.D., (pictured here) associate professor who leads the legume genomics laboratory, grew up in Guatemala. Like many other developing countries, Monteros' motherland is greatly impacted by food insecurity and malnutrition. She remembers meeting a professor during her undergraduate studies who developed a nutrient-rich food supplement and gave it to schools. When the students weren't hungry, they were able to pay attention in class and be more successful. Monteros wanted a career in agricultural science because it provided the opportunity to help people, not only those who eat food but also those who grow it.



We do research on the small things, like genes and DNA. Small variations in the specific instructions contained in DNA can make a huge difference in whether a plant is tolerant or susceptible to diseases and other stresses in the field.

By finding the right combination of genes available in nature and the timing of the genes being turned on, we are able to help a plant better adapt to variable weather or to better utilize the water and nutrients in the soil. The final product is a crop that grows well and can feed animals and people while protecting the land for future generations."

—MARIA MONTEROS, PH.D.
Associate Professor, Legume Genomics





BEGIN WITH HUMILITY



SERVING THE

COMMUNITY

Team Noble strives to motivate and empower the Noble Research Institute community to grow through professional and personal development. By putting others first, we can serve, remove barriers, facilitate communication and create new opportunities to add value to the community.



230
EMPLOYEE VOLUNTEERS



3,096
HOURS OF VOLUNTEER SERVICE to the community

19.25
MILES OF TRASH PICKED UP through three events



636
MEALS SERVED at the Ardmore Soup Kitchen



2

OUR CORE VALUES

BUILD
TOGETHER

Success is a result of collaboration, not standing alone. Look for new ways to unify efforts. Listen. Mentor. Seek to help those around you improve, and always recognize their accomplishments.

DON'T GO ALONE

Two minds hold twice the knowledge and twice the ideas. When united, they can look at situations from different angles to find better solutions and greater success. Friendships form among collaborators, wisdom is shared and both parties grow. Teams, near and far, tackle projects with the understanding that greater outcomes arise when people build together.

“

The Montz family is great to work with because they understand the value in building together. They each play to their strengths, which has made the overall operation incredibly successful...”

—CHARLES ROHLA, PH.D.
Pecan and Specialty
Agriculture Systems
Manager

RIGHT

Customers browse through the Pecan Shed in Henrietta, Texas.

The Pecan Shed started out in what Tim Montz describes as more shack than store: a tiny building about the same size as his current office. The rented space was heated by only a small, plug-in appliance that Tim’s children, Jake and Jill, remember did little to warm the shop during peak season. From Thanksgiving through Christmas, neighbors would stop by to purchase pecans Tim had harvested or to have their own cleaned and shelled. Tim had been much like many of his customers just a few years prior to opening the store in 1981. He grew up raising wheat, cotton and cattle with his



grandfather just south of the Red River, near Charlie, Texas, and branched out to farm on his own as a young man. He soon found he was only making enough to scrape by and, in 1978, started picking up pecans by hand on some of the land he leased. At first, Tim was just looking for some extra Christmas cash. Then he saw potential for profit in the native nut. He began leasing more land with native groves, and, by 1985, some of his landlords were asking him to plant more trees. Jake and Jill don’t remember a time when pecans were not a central piece of their family dynamics. They were such a part of life that Jill used to joke she had one biological brother and thousands of other siblings in the form of pecan trees. “The pecans took a lot of Mom and Dad’s time,” Jill says. “We saw them work hard.”

Tim would farm during the day and bale hay at night, often working all day, seven days per week. Many nights, he would come home after Jill and Jake were tucked into bed and head back to the fields before they awoke. At one point, he was managing 300 cows and 2,000 stocker cattle as well as farming 2,500 acres of wheat to make ends meet and help pay for trees and irrigation. It takes up to 10 years for a pecan tree to start producing, which means he was often tending trees that were not generating any income. “It was a long struggle,” Tim says. “It took several years. I didn’t have the money to plant everything at once, but I knew I had to make it a go. Failure wasn’t an option because I had all my money tied up in trees.”

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BUILDING ON TRADITION

Tim Montz and family continue growing their pecan business after nearly 40 years.



A FAMILY AFFAIR

Tim Montz (on tractor) grew up raising wheat, cotton and cattle with his grandfather along the Red River, near Charlie, Texas. In 1978, he began picking up a few pecans to sell. Today, he and his children, Jake (left) and Jill (right), manage 25,000 pecan trees and two stores that ship pecans across the country.

2 BUILD TOGETHER

Tim, whose own farming experience began on a tractor with his grandfather by age 8, started his kids young. Jake and Jill spent their summers in the orchards spraying for weeds. When they got in trouble, Tim would send them out to prune trees.

"I was good at finding them something to do," Tim laughs.

Neither sibling originally thought they wanted to return to the family business, but Jake decided to come home once earning his horticulture degree at Tarleton State University. Jill soon followed after earning a business degree and working in HR at the local hospital.

"There is just something about this place that you can't get anywhere else," Jill says. "It's part of our heritage, and I'm proud that we're able to share that with other people by being part of their family traditions."

One of the Montz family traditions is a partnership with Noble Research Institute, which began when Tim sought advice on how to plant pecan trees in 1985. Consultants answered Tim's questions about establishing new orchards and offered recommendations for the cattle operations he managed.

Now the family also offers their orchards as a location for Noble educational events in addition to a laboratory for researchers exploring different ways of improving production.

"The Montz family is great to work with because

they understand the value in building together," says Charles Rohla, Ph.D., pecan and specialty agriculture systems manager, who spent three summers in Montz orchards studying different nut thinning techniques for his doctoral work. "They each play to their strengths, which has made the overall operation incredibly successful, and they are just good, welcoming people who are always willing to help others interested in the industry."

Today, Jake manages the family's 25,000 trees, which yield 1 million pounds of pecans in a good season. He continues to call on Noble consultants for advice on cultivar selection, efficient irrigation and pest management.

Jill manages the stores. No longer is The Pecan Shed a simple shop. The Montz family has a wholesale location at Wichita Falls, Texas, and another, larger retail store with a gas filling station off Highway 287 in Henrietta. They also ship pecans to every state in the U.S.

They both have ideas for the future — like expanding the orchards and enhancing their customers' experiences — but they continue to build upon the foundation their father set.

"We've been fortunate to watch Dad, to see the lessons he's had to learn and the attitude he has" Jake says. "He's taught us that no matter what happens, we can work our way out of it together." ■



ABOVE
Tim Montz steps down from his tractor after mowing the orchard floor.

BELOW
Jake Montz inspects trees for signs of pecan nut casebearer eggs.



DIVIDE AND CONQUER
Tim Montz mows the floor of one of several pecan orchards, which, as he moves toward retirement, Jake now manages. The trees produce 1 million pounds of pecans in a good season, and Jill oversees the stores that sell their harvest both wholesale and retail.



WHERE BOOTS HIT THE GROUND

Gaining knowledge is just the beginning. The moment of truth is when information reaches the hands of the producer, moving them to take action that will improve their land's health and productivity. Noble Research Institute builds relationships with these farmers and ranchers and helps them reach their goals so they can pass on a legacy of healthy land for generations to come.



Producer Jimmy Emmons (left) with Hugh Aljoe, director of producer relations

PRODUCER RELATIONS

Noble's producer relations team helps farmers, ranchers and land managers apply systems-based management to their specific operations. Collaboration brings together the consultants and agricultural producers to help reach producers' operational goals.

IN THE OFFICE

100 PRODUCERS met with consultants in the office.

ON THE MOVE

Consultants traveled to **300** FARMS to visit producers in the consultation program.



TOP 5

RESOURCE MANAGEMENT AREAS

- Forage Production
- Livestock Production
- Fish and Wildlife Habitat
- Crop Production
- Fish and Wildlife Populations

MANAGEMENT PRACTICES

- Weed Management
- Nutrient Management
- Nutrition Management
- Grazing Management
- Aquatic Vegetation Management

NOBLE PRODUCERS ACROSS THE NATION



INTEGRITY BEEF

The Integrity Beef program was first introduced to a few progressive cow-calf producers in 2000. It serves as an example of an integrated effort to apply state-of-the-art technology and best management practices of the cattle industry to produce a more consistent, high quality product. Today, this program is a producer-led program with Noble Research Institute serving as a consultant to the program.



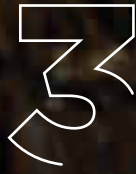
BUILDING SOLUTIONS WITH PARTNERS

ACROSS THE GLOBE

Noble Research Institute is investigating answers to questions about land stewardship and agricultural production, from plant performance to animal health and technology. The best results come from working with others who share a common goal but have different expertise and resources.

In 2018, Noble researchers, consultants and staff collaborated with many associations, groups and organizations including:

DOMESTIC	GLOBAL	HIGHER EDUCATION
Advanced Animal Diagnostics <i>Morrisville, North Carolina</i>	AgResearch <i>New Zealand</i>	Texas Tech University <i>Lubbock, Texas</i>
American Robotics <i>Marlborough, Massachusetts</i>	Gentos S.A. <i>Argentina</i>	Texas Woman's University <i>Denton, Texas</i>
Choctaw Nation <i>Durant, Oklahoma</i>	GrowSafe Systems <i>Calgary, Canada</i>	University of California - Berkeley <i>Berkeley, California</i>
Forage Genetics International <i>Nampa, Idaho</i>	MaiaGrazing <i>North Sydney, Australia</i>	University of California - Davis <i>Davis, California</i>
Grazinglands Research Laboratory (USDA Agricultural Research Service) <i>El Reno, Oklahoma</i>	PBS International Ltd. <i>United Kingdom</i>	University of Delaware <i>Newark, Delaware</i>
Hy-Plains Feedyard <i>Montezuma, Kansas</i>	Rizoma <i>Brazil</i>	University of Georgia <i>Athens, Georgia</i>
Novozymes <i>Franklin, Tennessee</i>	HIGHER EDUCATION	University of Kentucky <i>Lexington, Kentucky</i>
U.S. Department of Agriculture Natural Resources Conservation Service <i>Washington, D.C.</i>	Clemson University <i>Clemson, South Carolina</i>	University of Missouri <i>Columbia, Missouri</i>
McDonald's Flagship Farmer Program <i>Chicago, Illinois</i>	Michigan State University <i>East Lansing, Michigan</i>	University of Nebraska - Lincoln <i>Lincoln, Nebraska</i>
Persistence Data Mining <i>La Jolla, California</i>	Mississippi State University <i>Starkville, Mississippi</i>	University of North Texas <i>Denton, Texas</i>
Tyson Foods <i>Springdale, Arkansas</i>	New Mexico State University <i>Las Cruces, New Mexico</i>	University of Oklahoma <i>Norman, Oklahoma</i>
Vence <i>San Diego, California</i>	North Carolina State University <i>Raleigh, North Carolina</i>	University of Tennessee <i>Knoxville, Tennessee</i>
	Oklahoma State University <i>Stillwater, Oklahoma</i>	University of Wyoming <i>Laramie, Wyoming</i>
	Purdue University <i>West Lafayette, Indiana</i>	Washington State University <i>Pullman, Washington</i>
	Texas A&M University <i>College Station, Texas</i>	Yale University <i>New Haven, Connecticut</i>
	Texas Christian University <i>Fort Worth, Texas</i>	



OUR CORE VALUES

NEVER FEAR

CHALLENGES

Be bold. Think beyond the status quo. Do not let the threat of failure or the perceived size of the challenge deter us from our goal. Seek to discover, dare to attempt something new, and look toward tomorrow with optimism.

DON'T GIVE UP

The challenge is too great. Some will say it cannot be done, to attempt it will only result in failure. Then there are those who say the need is too great to ignore the challenge. The prize is worth the risk of failure. They know the journey will be marked with struggle, but they proceed because they remember to never fear challenges.

IT TAKES
CONFIDENCE

Dave Wingo turns a hobby into an integral part of his farming and ranching operations.

“Dave is eager to listen and learn, but what makes him stand out is that he’s a doer. He’s done just about everything you can think of. ... He just doesn’t seem to back down from any challenge.”

—JAMES LOCKE
Senior Soils and Crops Consultant

Dave Wingo had 15 cows and big dreams in 1980. The recent high school graduate had wanted to be a farmer like his grandfather since he was 6 years old. He plowed his first furrow at age 8, started moving irrigation pipe for peanut farmers at 13 and went into the hay business at 16. Now he just needed to figure out how to get more cows. His grandfather, however — one of his greatest supporters — was not so optimistic. Wingo still remembers his grandpa’s voice: “Son, I want to tell you something. I’ve done this my whole life, and it’s the hardest thing in the world there is to do.”



RIGHT
Dave Wingo drives stocker cattle to a new pasture on horseback.

The elder man encouraged him to go back to school and get a “real job.” There was no money in farming, he said. But Wingo was not easily swayed.

“I told him, ‘I’m going to do it. I want to do it,’” Wingo recalls.

Wingo’s grandfather promised to help him as much as he could, but the young man continued working his day job while tending his cattle and looking for ways to grow.

That summer, drought hit.

Wingo had just opened a gate to one drying-up pasture to let his cows roam between it and another when a public service announcement came over his pick-up’s radio. It was R.L. Dalrymple from Noble Research Institute telling people not to do what Wingo had just done.

Knowing he needed help, Wingo scratched the man’s phone number into the mud on the hood of his truck and dashed to the house to call it. The resulting conversation started a relationship that taught him the value of rotational grazing — where cattle graze one section of a pasture before moving to the next so grass has a chance to recover and weeds don’t take over. The connection has grown to inform nearly every area of Wingo’s ranch, from grazing plans to cattle marketing strategies.

Through the following four decades, Wingo followed the advice of Noble Research Institute consultants as he expanded his cow herd from 15 to about 600 mother cows and entered the stocker cattle business, tending as many as 1,400 at a time. He buys small, 350-pound calves and grows them to 750 pounds on

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WINNING BIG
Dave Wingo always knew he wanted to go into ranching, but the economics of the 1980s didn’t help. Neither did drought. Wingo began to find his stride when he learned about rotational grazing and became more intentional about managing his forages, cattle and marketing. More recently, he has taken on the new challenge of raising Corriente cattle for team roping, one of his favorite pastimes.



NEVER FEAR CHALLENGES



ABOVE
Dave and Brenda Wingo raise cattle on their ranch near Holdenville, Oklahoma.

TOP
Dave Wingo uses horses in both his hobby of team roping and as well as his work on the ranch.

wheat and crabgrass pasture before selling them. For the first time, Wingo had people working for him as opposed to him working for other people. Though he too continued working off the ranch.

“Dave is eager to listen and learn, but what makes him stand out is that he’s a doer,” says James Locke, senior soils and crops consultant, who has visited the Wingo ranch many times to offer fertilization recommendations. “He’s done just about everything you can think of. He’s adopted new technologies and practices. He’s been innovative. He just doesn’t seem to back down from any challenge.”

Wingo didn’t give up on his lifelong ambition when bovine respiratory viral diarrhea killed several of his cattle. Not even when a tornado blew away the roof of his home and scattered cattle for days.

But the timeless struggle is making enough money to keep the ranch going. It can be difficult, Wingo says, especially as costs of inputs, like fertilizer, constantly fluctuate as do the prices he receives for his cattle at market.

In 2012, Wingo saw an opportunity to add a stream of revenue to the ranch through his hobby — team roping. He and a buddy were at a roping event when they realized the industry needed higher quality calves. Wingo thought he could fill the need and told his wife, Brenda, of his plan. She wasn’t sure, at first.

“I said, ‘We don’t know anything about that,’” Brenda recalls, adding with a laugh: “He didn’t care. He just jumped in there.”

They started with 100 Corriente heifers and a steep learning curve. The primary goal in growing stocker cattle is to put weight on them, but sport cattle are athletes. Wingo had to learn how to control a calf’s growth to a quarter pound each day.

“We had a lot to learn in the beginning,” Wingo says, “but they’re the only cattle I ever had that paid for their own feed bill each week. They’ve also taken care of the cost for feeding hay to the cows.”

Corriente cattle have different grazing behaviors from those of the primarily English-based calves he has traditionally raised. The hardy breed will eat anything, whereas more common ones often choose certain grasses over others. The difference has helped Wingo incorporate the roping cattle into his rotational grazing system — which he has been optimizing since his first interaction with Noble.

The stockers get first choice of grasses in pastures, then the cows and the roping cattle clean up.

“I would have nothing if not for Noble Research Institute,” Wingo says. “Those guys gave me confidence to keep going regardless of the challenges. Ranching, farming or roping, you’ve got to have confidence in your plan or it won’t succeed.” ■



A DIFFERENT BREED
Dave Wingo raises and trains Corriente cattle used for team roping events. As a stocker producer, Wingo is used to putting weight on cattle for beef production. However, sport cattle are athletes that need special training and care. He incorporates them into his rotational grazing system and ensures they are ready for event day.

WHAT ARE GREAT CHALLENGES?

Noble Research Institute's mission is "to deliver solutions to great agricultural challenges," and, in 2018, the organization identified three challenges that frame Noble's research and education. These are significant threats to the viability of agriculture, but they are also opportunities for Noble to apply its strengths and meet the needs of farmers and ranchers.



1 GREAT CHALLENGE #1: ECONOMIC UNCERTAINTY

Risks associated with variable climates, markets and consumer demand all play roles in the economic uncertainty of agricultural production. Many of these risks are out of the hands of producers, but they do have control over the way they manage their resources. Noble Research Institute helps producers mitigate risk by looking at ways to make agricultural production systems more resilient and efficient. This could include targeted management practices, science, technology or products.



2 GREAT CHALLENGE #2: ECOSYSTEM HEALTH

Today, agriculture as an industry realizes that management practices can both positively and negatively impact soils, air and water. While science has greatly advanced understanding of the soil's physical and chemical properties, much remains unknown about the biological aspects, and its greater impact on air and water. Noble Research Institute is poised to help answer questions related to soil health and ecosystem functions. Researchers are evaluating ways to measure soil health and biology, and they are working to help producers implement practices that build soil health and enhance ecosystems.

3 GREAT CHALLENGE #3: EDUCATION AND TRAINING

It's not enough just to develop new tools and technologies or to evaluate different practices. In order for these different ideas and options to take practical shape on a producer's operation, the producer needs to know what is being done and learned from research fields. To bridge this gap, Noble Research Institute offers educational programs to farmers, ranchers and other land stewards. The goal is to create a Noble Learning community where producers can learn in ways that best meet their needs. This way producers will take away the information and experiences they need to help them make confident decisions for their operations.



LAND STEWARDSHIP PROGRAM

The Land Stewardship Program is intended to provide producers with a process to quantify economic and ecological return on investment from managing land with a stewardship-based ethic. The program will give producers critical information to help them make timely decisions within their current enterprises as well as a mechanism to help them fully understand the value of their ecological contributions to society.

The foundation of this effort is enabling producers to be better land stewards. Having the right information is the key to making the best possible decisions.

The program will provide participants a user dashboard that translates their site-specific ecological metrics into useable information critical for outcome-based management. Additionally, this data can be used to track stewardship progress over time.

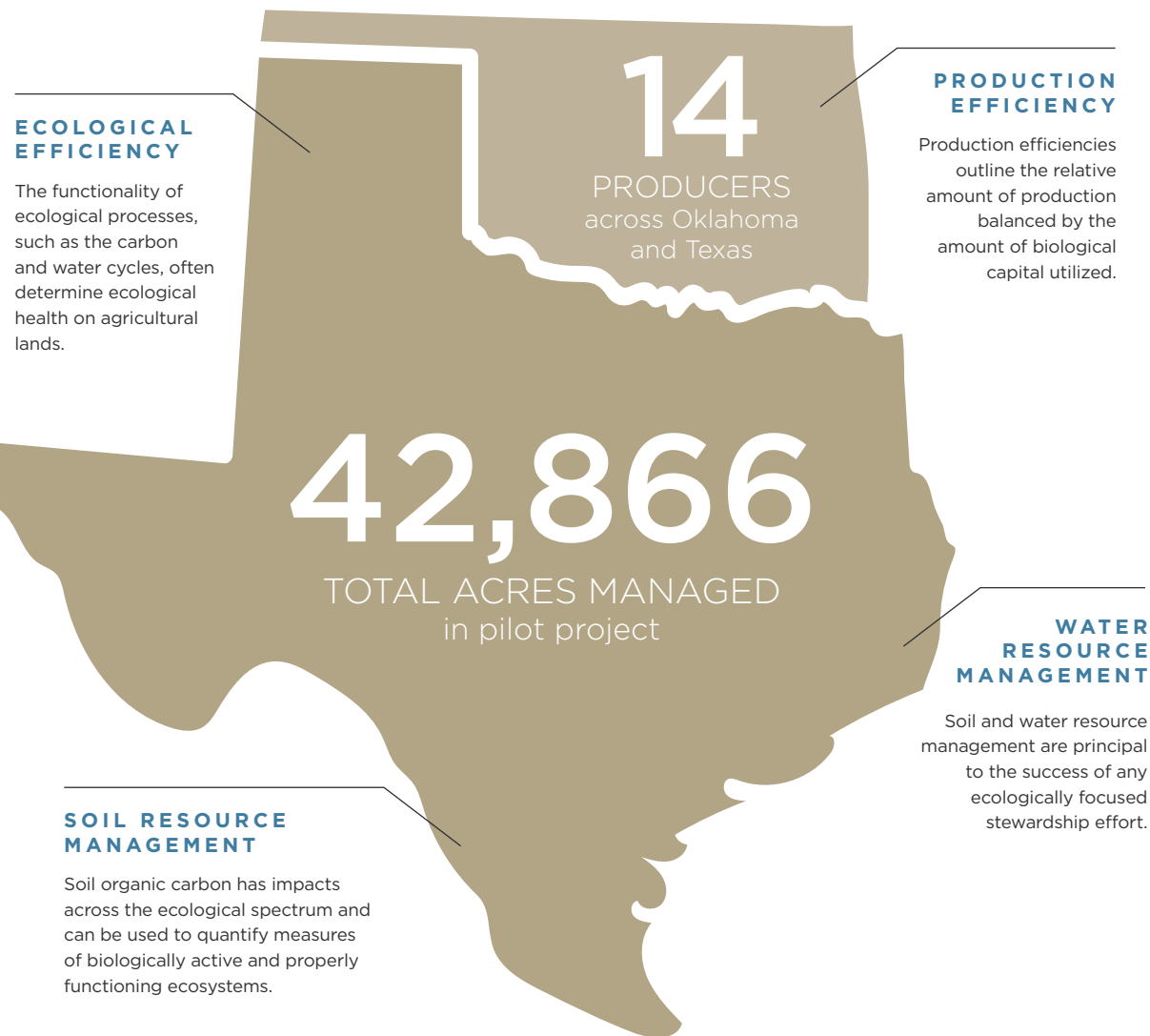


Jeff Goodwin, conservation stewardship leader and ag consultant

PUTTING NUMBERS TO LAND

STEWARDSHIP

In 2018, Noble Research Institute launched a land stewardship pilot project to gather data on four management areas: ecological efficiency, production efficiency, soil resource management and water resource management. For the pilot project, Noble consultants enlisted the help of 14 producers, seven in Texas and seven in Oklahoma, who collectively manage 42,866 acres.



“

Land stewardship starts beneath the ground with the intricate web of bacteria sequestering carbon, filtering and purifying water. When the soil is healthy, your grass is healthy and then your cows are healthy.

Plowing the land destroys that network. The idea of building the soil and that community is No. 1. That mentality is what Noble has given to me.”

—MEREDITH ELLIS
Land Stewardship Program pilot project participant





OUR CORE VALUES

LEAD WITH
PASSION

Advance the mission daily through your unquenchable desire for excellence. Serve as an example for others.

DESIRE TO DO MORE

There are those who do because they have to and those who do because of an unquenchable desire to improve. They are driven to build up, to fix what needs mending, to improve what they have already made good, for the benefit of others and themselves. It is their commitment to excellence that inspires action and causes others to lead with passion.

“

I'm not sure where the passion comes from. But I believe the mark of excellence is putting more focus on the land than you do your business or livestock. In ecology, you have to give to receive. ... The same goes for life. The more you give, the more you get.”

—CHUCK COFFEY

RIGHT

Chuck Coffey applies prescribed fire to his land.



GIVING TO THE LAND

Chuck Coffey uses prescribed fire to boost the land's health and ability to support beef cattle.

Chuck Coffey's place looks like a scene from the musical *Oklahoma!* Tucked between the Arbuckle and Osage mountains in Murray County, beyond the switchbacks and on top rolling hills, the Double C Cattle Ranch is an example of possibility.

Picture an open country of butterflies, scissortails and skeletons of old cedar trees — evidence of routine prescribed fire and a lifetime pursuit of conservation and land management. There are tufts of native grass, the occasional boulder that represents the billion-year-old aquifer bubbling beneath, blue ponds, rocky bluffs and bucks resting on open prairie. The

Double C Cattle Ranch inspires any visitor to ask, “What did the Great Plains originally look like?”

“Somethin’ like this,” Coffey says as he smiles.

Coffey has dedicated his professional and personal life to Lloyd Noble's mission: to provide solutions to great agricultural challenges, especially for ranchers. Coffey is a fifth-generation cattleman, a Texas A&M alumnus and former agriculture professor at Murray State College in Tishomingo, Oklahoma. He's retired after 20 years as a Noble Research Institute pasture and range management consultant, and he still uses the organization's resources to inform decisions about his operation. Today he serves as chairman of the National Cattlemen's Beef Board, traveling globally to advocate for beef.

“I'm not sure where the passion comes from,” Coffey says. “But I believe the mark of excellence is putting more focus on the land than you do your business or livestock. In ecology, you have to give to receive. It's better to only take a portion and give the rest back to the ecosystem. The same goes for life. The more you give, the more you get. Life just works out that way.”

Coffey was a pasture and range specialist at Noble when Robert Wells, Ph.D., was hired as a livestock consultant in 2005. Wells remembers Coffey as an inclusive team member with a gravitating ability to promote excellence in everyone.

“It's easy to trust someone like Chuck,” Wells says. “He exudes quiet confidence about what he does and knows. He has this natural knack of pulling people into a conversation and helping them want to be part of the solution.”

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LOOKING AT PROGRESS

Chuck Coffey regularly uses prescribed fire to improve the quality of land on the Double C Cattle Ranch, which sits between the Arbuckle and Osage mountains in Murray County, Oklahoma. He operates the land alongside his wife, Ruth, and their three children: Aaron, Seth and Sarah.

4 LEAD WITH PASSION



ABOVE
Chuck Coffey (right) and a volunteer firefighter take a break from a prescribed burn.

RIGHT
Cattle graze on the Double C Cattle Ranch in Murray County, Oklahoma.

He also has an “eye” and intuition that can’t be taught, Wells adds.

“Being a rancher is as much of an art as it is a science,” Coffey says. “And a lot of it’s in your stomach.”

Coffey discovered the art of ecology in his hometown of Harper, Texas, at just 13 years old.

“We had a neighbor whose land looked great and ours looked terrible,” Coffey says. “Ours was cedar-infested and the stocking rate was declining. His was increasing. His was doing better because he was prescribed burning, and he called us one day to come out and help. He handed me a drip torch and said, ‘Here, son. Go light this trail of fire.’ And I did. It was fun, but it was also one of those ‘wow’ moments in your life.”

Coffey’s beliefs about beef production and land management have been refined and redefined over the years. And, at times, put to the fire. The 2011-2012 drought remains one of Coffey’s greatest lessons in leadership, conservation and making the right decision for future generations.

“Where I had grass, I didn’t have any water; where I had water, I had no grass,” he remembers. “At first, I was pushing too hard. I wasn’t being conservation-focused. I was just trying to maximize the number of cows I was trying to run.”

Coffey reduced his herd by 50%. Selling quality, bred cattle was a decision to uphold the integrity of

the land. But it wasn’t an easy one.

“I just leaned up against a post and cried,” he says. “But I learn more from my mistakes than I do my successes. The only way a person can truly fail is to not try. If you try and fail, you’re not a failure. If you fail to try, you’re a failure. That’s Winston Churchill, by the way.”

Coffey never misses an opportunity to give credit where it’s due. He operates the ranch with his wife, Ruth, and with the help of his three children: Aaron, Seth and Sarah. Together, the family holds multiple degrees in agriculture, serves across countless boards, leads various associations, and volunteers in plenty of roles. Leading through example is a passion Coffey passed down, and helping others is his living legacy.

“Ultimately, we’re just a cow-calf operation,” Sarah says. “Dad’s passion is the whole beef industry. He wants to see these ranches succeed into the next generation not only for our family but for other families. He wants to help not only us but other people.”

Coffey’s short-term goal is to clear all cedar trees from his land and return the ecosystem to the original Great Plains. He envisions a savanna or open prairie habitat that can support life, livestock and his family for many more lifetimes.

“Everyone has their passions,” Coffey says. “Mine is to give as much to the land while we’re alive.” ■



BURN FOR GOOD

Chuck Coffey discovered the importance of prescribed fire at age 13 through a neighbor in his hometown of Harper, Texas. Today, Coffey and his family continue to use prescribed fire to manage eastern red cedars, an invasive species, and to improve their land’s overall health and productivity.



LEADING THE WAY IN CONTINUING EDUCATION FOR PRODUCERS

Noble Learning provides farmers and ranchers with targeted educational opportunities that draw together technology, innovation and best management practices. It facilitates and amplifies the transfer of knowledge and promotes the building of competencies to advance land stewardship. The goal is that through offering guidance and proven ideas, land managers can maximize their operations and build profitable, resilient systems.



32 EDUCATIONAL EVENTS



1,094 PARTICIPANTS



144 PRESENTATIONS



289 TOUR PARTICIPANTS



GOING NUTS FOR PECANS

The pecan is North America's only native, commercially produced tree nut. It is gaining greater popularity across both the U.S. and the world. The nutrient-dense snack is not only tasty. It holds potential to increase the profitability and sustainability of landowners. Noble Research Institute is a leading resource for growers and other pecan scientists who are continually working to improve the industry.



Charlie Graham, Ph.D., senior pecan specialist

MEET THE NOBLE EXPERTS

Of the 10 horticulturists who specialize in pecans in the U.S., two work at Noble Research Institute: **Charles Rohla, Ph.D.**, pecan and specialty agriculture systems manager, and **Charlie Graham, Ph.D.**, (pictured above) senior pecan specialist. Graham was hired in 2018. His research focuses on factors that influence quality and nut loss; profitability of crop production; crop, soil and water issues; and potential new pecan varieties.

A HEART-HEALTHY CROP

The pecan contains more than 19 vitamins and minerals, including vitamin A, vitamin E, folic acid, calcium, magnesium, phosphorus, potassium, vitamin B and zinc. This super nut is the most antioxidant-rich nut in the world, and it has been connected to reductions in LDL (or "bad") cholesterol.

PECAN RESEARCH AT NOBLE

Noble researchers from across the organization focus on critical issues relating to disease pressure, propagation and management practices. Their quest for answers aims at delivering solutions for challenges like pecan scab and alternate bearing — the phenomenon in which trees across the country experience the same cycle of heavy then light production every other year.



OF THE **104,000 ACRES** used for pecan production in Oklahoma, about three-fourths are native.

Within the next 10 years, improved pecan production is expected to triple.

The U.S. consumes about **8%** more pecans than it produces.



IN 2018

U.S. pecan growers produced **221 MILLION** pounds valued at **\$423 MILLION**

according to U.S. Department of Agriculture estimates.

Production was down because of Hurricane Michael in Georgia (50-60 million pounds lost) as well as too much rainfall and lack of sunlight in Texas, Oklahoma and Louisiana (20-30 million pounds lost).

Pecan growers received the latest information in research and technology through

68 educational workshops, tours, presentations, interviews and articles developed by Noble consultants.

40%

Only about **40 percent** of native pecan trees in Oklahoma are harvested and even less are managed for peak production.

Encouraging landowners to manage native groves could double how much of this heart-healthy nut the state produces. It would also increase landowners' profitability and sustainability through operational diversification.





OUR CORE VALUES

PUT WORDS INTO
ACTION

Knowledge for the sake of knowledge is not enough. Work to move ideas into solutions. Invent. Solve. Take action, and deliver even more than is expected.

LIVING OUT PRINCIPLE

Words are hollow when they stand alone with no resolve behind them. They are strengthened by careful planning, and they spring to life through actions. Words must lead to effort, and effort must be sustained. Grit then becomes the active ingredient for change because greatness is only possible for those who put words into action.



PUT WORDS INTO ACTION



Brent and Sheri always ask questions and seek the latest information in hopes of learning something to improve their bottom line. Once they have decided what will work for them, they put their words into action. They are optimistic and forward-thinking, making them a delight to work with.”

—DAN CHILDS
Senior Economics Consultant

THE ROAD TO RETIREMENT

Brent and Sheri Kuehny begin building a cow herd in order to better achieve their goals.

Brent and Sheri Kuehny had enough of cold winters in Kansas. An unrelenting season of snow, ice and freezing temperatures in the early 1990s wreaked havoc in the 30,000-head feedyard Brent managed. It took until 1997 to right the operation, and, by that point, the couple was ready for something new.

Brent and Sheri wanted to move south, and they wanted to start their own operation — one that wouldn't require the dozens of employees like the feedyard.

The couple sat down one evening and drew a circle on the map. They started investigating estates

within that region, which stretched from southern Kansas to Texas. Within months, a real estate agent found them a place right in the middle of their search zone: a ranch near Elmore City, Oklahoma.

“We knew almost immediately this was the place for us,” says Sheri, adding that the town's school color was even purple, the same as Brent's alma mater, Kansas State University.

They moved with their children, ages 2 and 5 at the time, to the property, which had a house, one barn and a primitive set of pens, in May 1997.

They intended to raise stocker cattle on grass pasture, which Brent had grown up doing with his father on both sides of the Oklahoma-Kansas line. However, they quickly found that calves gained only about 1 ½ pounds on their southern Oklahoma grasses compared to 2 ½ pounds in Kansas. And, in 1998, a soured market meant the new Okies needed to find a different way to pay the mortgage.

They fell back on what they knew and began building a facility with partially covered pens and feedbunks. Today, the facility holds 4,000 cattle and they fill it two to three times per year with newly weaned calves from the local area and other southern states. The cattle have access to wheat pasture and eat hay and grains, a diet formulated by a nutritionist, before going to feedyards in Kansas and Nebraska.

“We saw the opportunity that geography and climate offered us,” Brent says. “We could gather cattle from here and send them north, but, to efficiently meet our production goals, we would need to haul

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RIGHT
Brent Kuehny cleans his cattle's water tanks as part of his morning routine.



MOVING SOUTH
Brent and Sheri Kuehny moved from Kansas to Elmore City, Oklahoma, in 1997. They buy calves from the local area and other southern states and feed them on wheat pasture and a specially formulated diet before selling them to feedyards in Kansas and Nebraska. They are also building a cow-calf herd, upon which they plan to focus their operation's future.



PUT WORDS INTO ACTION



ABOVE
Brent Kuehny checks stocker cattle as part of his morning routine.

TOP
Brent and Sheri Kuehny doctor a stocker calf, which, afterwards, would be led to a secluded pasture to reduce stress.

feed to them. And there went our initial plan to scale back on labor.”

In addition to the stockers, Dollar K Ranch has been home to a few cows since 1999.

Brent is quick to say mother cows require a different set of skills from those he developed over a lifetime of tending weaned calves. However, in time, he and Sheri became increasingly aware that the cows may be their opportunity to finally reach the goal they set when first moving to the Sooner State — slowing down. Cows would not require as much supplemental feed as the stockers, which would significantly reduce labor and other costs.

“Our grasses and soils are better suited for mother cows than for the yearlings,” Brent says. “We just didn’t have a lot of experience with cows.”

Another drop in cattle prices, in 2008, gave Brent and Sheri the courage to become more serious about building a herd. They kept 150 of what they thought looked like the best heifers from a group of stockers that winter and leased a new pasture. They extended an invitation for Noble Research Institute consultants to visit, hoping to learn what they could do to improve the land and how to get started.

“We leaned a lot on Noble Research Institute for the cows,” says Brent, who discovered the organization in the early 2000s at the recommendation

of neighbors. “We’re not native. We needed to learn what our soils were capable of, what the grasses were good for and how to take care of it all.”

One of the consultants’ recommendations was to pay attention to genetics. While Brent and Sheri did not know the genetic history of their females, which came from as far away as Mississippi, they could know their bulls’ genetics. Noble livestock consultants taught them how to read EPDs, or expected progeny differences, which provide a basis for selecting bulls based on the traits, like weaning weights and carcass qualities, they want to see in their calves.

“Brent and Sheri always ask questions and seek the latest information in hopes of learning something to improve their bottom line,” says Dan Childs, senior economics consultant. “Once they have decided what will work for them, they put their words into action. They are optimistic and forward-thinking, making them a delight to work with.”

Brent and Sheri have gone from 40 to 400 cows in the past decade and ultimately plan to add 200 to 300 more while phasing out the stocker operation.

“If you had told us this is what we’d look like 20 years ago, we wouldn’t have believed you,” Sheri says. “But there’s nothing more fulfilling than looking out at the green grass and the cows and calves. At the end of the day everybody is fed and life is good.” ■

CARING FOR CATTLE

Brent Kuehny rides his horse Elvis to check cattle as part of the daily morning routine he has done for 22 years. Sheri, Brent’s wife, says he can tell just by looking at the cattle if any of them are beginning to develop illness. In such a case, the animal is immediately pulled and treated before being led back to pasture.



FROM RESEARCH TO REAL-WORLD

Lloyd Noble established Noble Research Institute (originally named The Samuel Roberts Noble Foundation) in 1945 to help revitalize agriculture after the Dust Bowl. He recognized that soil is the foundation of civilization, but it was not enough to simply promote an ideology of land stewardship. Ideas and knowledge need a way to reach real-world farmers and ranchers.

Here is how Noble Research Institute seeks to deliver solutions to great agricultural challenges:

1 START WITH RESEARCH, FROM LABORATORY TO RANCH.

Scientists gain a greater fundamental **understanding of how plants grow and interact with the world** around them.

Plant breeders develop stronger plants more **tolerant of drought and resistant to diseases and pests**.

Applied researchers **test ideas and technologies on Noble Research Institute's research ranches**, where beef cattle and wildlife are managed on native and improved forages alongside complementary operations, including pecans.



SUPPORT THE FUTURE OF AGRICULTURE THROUGH EDUCATION.

In addition to educational programs for agricultural producers, Noble Research Institute offers learning opportunities for youth — society's future problem-solvers. Students gain an **awareness of and appreciation for agriculture through hands-on lessons, tours, internship programs** and empowered teachers who receive support from Noble's youth educational outreach staff.



2 SHARE RESEARCH-BASED INFORMATION WITH LAND STEWARDS.

Agricultural producers can request **one-on-one consultation** from soils, crops, livestock, wildlife, fisheries and range consultants.

They can also **attend seminars, workshops and field days** related to cattle, forages, natural resources and economics. These courses are organized into competency-building progressions that enable an attendee to gain mastery in a subject area over time. In addition, they gain knowledge through information published by Noble researchers, consultants and staff in scientific and popular press outlets.





PUT WORDS INTO ACTION

PLANT BREEDING

Plant breeding is the art and science of changing plant genetics in order to create new varieties with increased productivity or value-added traits, such as drought tolerance, nutritional value or disease resistance. Noble Research Institute develops improved varieties of small grains (wheat, rye, triticale and oat) and perennial cool-season forages (tall fescue and alfalfa).

Most small grains breeding programs in the U.S. are focused on grain yield and quality. However,

Noble's small grains breeding program develops cultivars with improved forage qualities, better fall production, and the ability to recover after grazing with better overall forage yields. Perennial cool-season forage breeding aims to help fill the forage gap when bermudagrass is dormant in the Great Plains thus reducing the need to feed hay over the winter. Traits selected for include grazing persistence, heat and drought tolerance, winter survival, high biomass, seed yield, forage quality, and disease resistance.



Flowering alfalfa plants

FROM RESEARCH TO A FIELD NEAR YOU

Since 1956, Noble Research Institute has released 25 forage varieties.

1956

ELBON RYE



1975
MATON RYE

1995
BATES RYE

2002

NF-1 COMPASS PLANT

NF-1 COMPASS PLANT WITH PROFUSE LIGULES

1966
BONEL RYE

1993
OKLON RYE

1988
RED RIVER CRABGRASS



MIDLAND 99 BERMUDAGRASS

(co-release with USDA Agricultural Research Service Grazinglands Laboratory, Arkansas Agricultural Experiment Station, Missouri Agricultural Experiment Station and Kansas Agricultural Experiment Station)

1999

2007

MATON II RYE

EG 1101 SWITCHGRASS

EG 1102 SWITCHGRASS

EG 2101 SWITCHGRASS

2008

2011

TEXOMA MAXQ II TALL FESCUE

2009

NFLT12 DARNEL RYEGRASS

2014

NF101 WHEAT

NFTW6001 TALL WHEATGRASS

PLAINSMEN TALL WHEATGRASS



2016

2013

NF201 TRITICALE

BATES RS4 RYE

HEAVY GRAZER II OAT

NF402 OAT

IMPACT CRABGRASS

CHISHOLM SUMMER DORMANT TALL FESCUE

RENOVATION WHITE CLOVER (co-release with University of Georgia)

BE RESPONSIBLE FOR
TOMORROW

Keep your commitments. Work hard. Create and maintain a safe work environment. Know that today's decisions affect tomorrow's outcomes.

TIME IS PRECIOUS

The future is simply an accumulation of all the days that came before it. Its challenges reflect its past circumstances — and what was done, or not done, about them. Tomorrow hinges on the recognition of today's generation that its youth will grow up to lead, that progress is a continuous process requiring patience and persistence, and that we all must be responsible for tomorrow.

“

Every decision you make is tied to another decision on the ranch, and you find out if you made the right one years down the road. Noble ... has helped us navigate the responsibility we have to make good decisions today so we can take care of the land and raise healthy animals long-term.”

—MEREDITH ELLIS

RIGHT

Meredith Ellis returned to her family's Texas ranch in 2013 after living in Albuquerque, New Mexico.



FOR THE FUTURE

Meredith Ellis holds a deep appreciation for the ranch and its role in society.

Meredith Ellis got her first taste of the world at age 13. She had spent her childhood days covered in dirt — building forts, picking wildflowers and riding horses on her family's ranch in Rosston, Texas. Then one summer, the young teen traveled to Australia with her grandparents. She returned yearning for more adventure.

After high school, Ellis ventured to Albuquerque, a metropolis with 4,100 times the people and 600 miles away from her hometown. The buzz of the city, and its countless dining options, mesmerized the University of New Mexico student, but she couldn't

resist the call of nature. After earning her bachelor's degree in entrepreneurial studies, she started her master's in landscape architecture with a focus in sustainable design.

The coursework taught her how to deal with the challenges that come with urban sprawl, like runoff from highways, loss of habitat and truncation of migratory patterns. The lessons turned her thoughts to home, which now seems like a haven compared to the “concrete jungle” and its limited green space that, when it is seen, typically features the same five plants.

She realized the solutions to these problems are found on the ranch, where water is filtered through the soil and cattle naturally fertilize the land they graze, eventually to provide beef to the masses.

“All of a sudden, the ranch became something important, not just to me and my family but to everyone,” Ellis says. “I had taken all the biodiversity, this lushness and pureness for granted because that's all I ever knew growing up.”

It also gave her a deeper appreciation for her father, GC Ellis, who purchased the first 450 acres of G Bar C Ranch in 1983. Ellis decided to return to the ranch after receiving her degrees. The homestead now spans 3,000 acres of wildlife habitat, native range and improved forages for their primarily Angus cattle.

About the time Ellis went off to college, her father started working with Noble, first for help managing white-tailed deer then for other questions about forages and cattle. In 2000, he became a founding member of Noble's Integrity Beef Alliance, an asso-

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FOR ALL GENERATIONS

G Bar C Ranch in Rosston, Texas, is a multigenerational operation that includes GC and Mary Ellis (left) as well as their daughter, Meredith (far right), and her 4-year-old son, G.C. The Ellis family, with ranch manager Mike Knabe, manage 3,000 acres of wildlife habitat, native range and improved forages for primarily Angus cattle.

**BE RESPONSIBLE
FOR TOMORROW**



ABOVE
Meredith Ellis raises her son G.C., 4, on the ranch where she grew up.

RIGHT
Meredith Ellis sets up transect points in various pastures to monitor forages and other species over time using app-based software, GPS technology and photography.

ciation of ranches that follow a set protocol to produce high-quality, uniform, preconditioned cattle that demand a premium.

Ellis became increasingly interested in Noble, which she says shares her desire to see beef producers both feed the world and leave the land in better shape for future generations. She eventually joined the Integrity Beef Alliance Board of Directors and became involved in other projects, from a national beef sustainability pilot project to the Land Stewardship Program, which seeks to measure the ecosystem services that ranches provide to society.

“What I appreciate about Meredith is her focus on the ranch as a system,” says Jeff Goodwin, who leads Noble’s Land Stewardship Program. “She operates within a management framework that allows her to achieve specific, short-term goals and to see the big picture. She has a vision for the long-term, both ecologically and economically, and she shoulders the responsibility for tomorrow with passion and conviction.”

One thing that Noble has taught them, Ellis says, is that it all starts with the soil.

As part of their plan to continually improve soil health, the Ellis family, alongside Mike Knabe, who has worked on the ranch more than 30 years, are experimenting with cover crops in some of their wheat

fields. Planted in the summer, when the fields would typically lie bare, the mix of plant species keeps the ground covered while also strengthening the soil and its microbial kingdom.

Ellis says it will take at least eight to 10 years to see a difference, but she is excited about the possibility to reduce their need for fertilizer, which would benefit both the environment and their bottom line.

“Every decision you make is tied to another decision on the ranch, and you find out if you made the right one years down the road,” says Ellis, whose hope in the cover crops is founded on experiences of other producers she has met through Noble Research Institute. “Noble has been a safety net that has helped us navigate the responsibility we have to make good decisions today so we can take care of the land and raise healthy animals long-term.”

Ellis has a major reason for wanting to see the success of the land and ranch: her 4-year-old son, G.C. Already, G.C. is digging in the dirt and discovering caterpillars in some of the same places she did as a child.

“Once you have a child, all of a sudden it’s not about you anymore. It’s about what this world will look like in the future, when he’s my age,” Ellis says. “The idea that ranchers could make the world better, it’s one of the noblest things we can do, and I feel like Noble Research Institute is a catalyst for that.” ■



SOIL IS THE KEY TO SUCCESS
Meredith Ellis pays close attention to the different variables that contribute to the land’s health and ability to provide her family a livelihood. Though the ranch produces beef cattle, the ranchers recognize that success begins with the soil. They continuously look for ways to improve soil health so the ranch can continue far into the future.





Lloyd Noble Scholar in Plant Science
Bailey Christie (right) with mentor
Sonali Roy, Ph.D.

LLOYD NOBLE
SCHOLARS PROGRAM

The Lloyd Noble Scholars in Plant Science track provides a real-world laboratory experience to undergraduate college students who are paired with a scientist-mentor in a plant science laboratory at Noble Research Institute. Scholars are integrated into the laboratory setting and participate in regular laboratory activities while conducting their own research projects and building relationships with scientists.

The Lloyd Noble Scholars in Agriculture track offers undergraduate and graduate students the chance to explore various aspects of agriculture. While working directly with Noble Research Institute consultants, scholars develop applied agriculture skills, interact with producers and help identify solutions to the real-world issues they face, and further enhance skills needed to be effective agriculture advocates.

SHAPING THE FUTURE OF

AGRICULTURE

The Lloyd Noble Scholars program is more than just an internship. It's an opportunity for college students to conduct real-world research and explore endless possibilities for their futures. Throughout the summer, scholars are guided by Noble Research Institute agricultural scientists and consultants. Thanks to these mentors, scholars depart Noble each year with an experience they will remember for the rest of their lives. They, too, leave lasting impressions on their mentors.

MADDIE AND RAJ

I really enjoyed having Raj as my mentor. He works on many different projects and was eager to involve me in each one, even ones above the skill level of most undergraduates. My project, 'Characterizing Lesion Mimic Mutants in *Medicago truncatula*,' aligned perfectly with my research interests. I was able to design, control and execute the project with the confidence of a well-seasoned researcher to help me. I enjoyed this project so much that it highly influenced the Ph.D. research projects I looked into."

—CAROLINE MADDIE BRIGHTBILL
2018 Lloyd Noble Scholar in Plant Science



"I had the pleasure of working with Maddie. Her skillful and inquisitive approach toward understanding and solving problems led to completion of the designed projects on time. In turn, this was a great learning experience for me and helped me gain confidence in my mentoring skills."

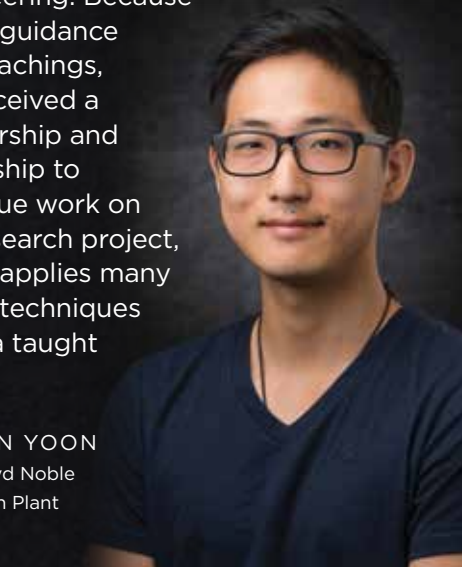
—RAJ NANDETY, PH.D.
Postdoctoral Fellow



KWAN AND VIDHYA

Vidhya made it a priority to teach me new research techniques, helping me advance my abilities as a researcher. As a direct consequence of my time with her, I've decided to pursue a doctorate in biochemical/chemical engineering. Because of her guidance and teachings, I've received a scholarship and fellowship to continue work on my research project, which applies many of the techniques Vidhya taught me."

—KWAN YOON
2018 Lloyd Noble
Scholar in Plant
Science



"I had a great experience with Kwan. Together, we did lots of troubleshooting in optimization of our protocols. My research productivity increased effectively while enjoying the personal and professional benefits of mentoring a student. It was not only about me teaching a college student; I learned a lot from him. Overall, it was a progression for both of our skill sets."

—VIDHYA RAMAN, PH.D.
Postdoctoral Fellow

MCKENZIE AND MYRIAH

My time as a Lloyd Noble Scholar in Agriculture confirmed my desire to pursue a career in agricultural policy. Myriah assigned me various projects to expose me to many ways policies impact people in agriculture. She was intentional and committed to ensuring I left Noble ready to accomplish future goals, and she remains one of my biggest mentors."

—MCKENZIE
CARVALHO
2018 Lloyd Noble
Scholar in Agriculture

"During Mckenzie's summer as a scholar, we were able to work on her policy analysis skills and develop her scientific writing. We continued the mentorship after she returned to Oklahoma State University, and I have seen tremendous growth in her over the past year. She has absolutely blossomed as a young professional, and I feel privileged to have played a small part in that."

—MYRIAH JOHNSON, PH.D.
Economics Program Leader and
Agricultural Economics Consultant



BRENT AND RYON

Ryon wanted to see me grow as a young professional in the beef industry. Never did I get a straight answer from him, just a few key clues that led me in the right direction. He made it a point to challenge me, cultivating me into a problem solver and critical thinker."

—BRENT WEISS
2018 Lloyd Noble
Scholar in Agriculture



"Being a mentor is an opportunity to share experiences with a young scholar who is very passionate about agriculture. Brent was just that person. Coming from a small cattle operation in Pennsylvania, Brent was passionate about learning everything he could about beef cattle production. His experience in cattle efficiency at the college he was attending allowed him to continue working on a project validating genetic traits for feed efficiency in replacement heifers."

—RYON WALKER, PH.D.
Livestock Consultant



A BRIGHT FUTURE
FOR AGRICULTURE AND
SCIENCE

Today's youth are tomorrow's decision makers, consumers, educators, agricultural producers, scientists and policymakers. Noble Learning seeks to provide these young minds and their teachers with opportunities to learn about agriculture and the science behind it. Connecting students and teachers with Noble's researchers and agricultural experts, as well as educational partners, fosters appreciation for the land and its caretakers, and opens eyes to endless career possibilities.



61
CLASSROOM
VISITS



5,000
TOTAL STUDENT AND
TEACHER IMPRESSIONS
across all events and activities

114
AREA TEACHERS ATTENDED
19 professional development workshops



65
SCIENCE TRUNKS
SHIPPED
to classrooms in
California,
North Carolina,
Oklahoma and
Oregon



BE
NOBLE

Be honest. Communicate. Appreciate others' contribution. Strive for excellence in every task. Take the opportunity to be exceptional. Treat others the way you want to be treated. Better mankind.

FOR ANOTHER'S GOOD

One of the best investments a person can make is in other people: a kind word, a lesson to share, a nod of thanks. It is in these ordinary moments where true heart combines with logic that the best of humanity is revealed.

The opportunity to take care of people and the land exemplifies a deep desire to do right, even when no one is looking. This is what it means to be noble.

“

When it comes to mentoring students, Yates is the kind of guy we want to support. He genuinely cares about people and the land, and both his actions and attitude are truly noble. He does everything with integrity and gratitude.”

—HUGH ALJOE
Director of
Producer Relations

RIGHT

Yates Adcock came to Middle Creek Ranch near Dustin, Oklahoma, in 1987.



IT'S ABOUT PEOPLE

Yates Adcock seeks to continually improve the land so it will provide for generations to come.

Yates Adcock and a ranch hand were out on their horses, under the big blue sky, checking cattle on both sides of a canyon. The day was much like any other, until Adcock cupped his hands around his mouth and yelled: “Not everybody gets to do this!”

The other man, a known jokester, rode on the far side of the ravine. After a few beats, Adcock heard a laugh and another echoing shout: “Not everybody wants to!”

Years later, Adcock still laughs at the story. He has retold it countless times, ending the tale with a note of seriousness: “I want to. I’m thankful and blessed to be able to do this.”

Adcock came to Middle Creek Ranch in 1987 after graduating with an animal science degree from Oklahoma State University, where he met his wife, Nancy. It was her father who had encouraged him to submit his resume to the ranch, which, today, stretches across 15,000 contiguous acres in southeastern Oklahoma.

The rocky prairie is adjacent to the South Canadian River and home to wildlife and cattle. Adcock, a fifth-generation producer, manages the property alongside family and employees, who he describes as like family.

It’s a fragile land, he says. The thin soil is prone to erosion, bluestem is easy to overgraze, and every decision they make has implications for other areas of the ranch. Adcock has sought Noble Research Institute’s expertise in a variety of disciplines, from forages to soil health, throughout the past 20 years.

“There’s always a more productive, more profitable, more beneficial way to manage our natural resources,” Adcock says. “Noble Research Institute has been like a friend that we can run questions or ideas by as we’re trying to make the most positive impacts out here.”

Adcock is quick to say stewardship is far more than just the plants and the animals. It is also about people.

There are his now-adult children, Nichole and Colton. He and Nancy reminisce at diaper changes in feed trucks and breakfasts together at 4 a.m. Most mornings, they now send Colton, a pilot, off into the sunrise from a grassy airstrip across from the cattle working facility. And Nichole travels back and forth

continues on next page

“NOT EVERYBODY GETS TO DO THIS”
Yates Adcock says he is thankful for all the ranch has done to provide for him and his family, and he is committed to doing right by the land so it can continue to provide for generations to come. He and his team manage cattle on 15,000 contiguous acres in southeastern Oklahoma.





TOP
Austin Witmer, a former Middle Creek Ranch intern, now works full-time on the ranch.

ABOVE
Front: Yates and Nancy Adcock; Back: Austin Witmer (left) and Mike Handley

from Tulsa, where she works as a nurse.

There is also Mike Handley, who has worked at Middle Creek since he moved to the area from Missouri eight years ago. The plans he and his wife, Wendy, had to adopt one child turned into the opportunity to raise four siblings, now ages 5 to 10, on the ranch.

In 2007, Adcock saw the opportunity to bring more young people to the ranch. There were special projects, like taking quail counts, in which he was interested but did not have the time to undertake. The rancher, who once toyed with the idea of becoming an agriculture teacher, thought these projects might make good internship opportunities.

Over the next several years, Noble Research Institute consultants helped Adcock find interns, often from their own pools of summer scholar applications. For the summer of 2014, Austin Witmer's name came up on a list. The Virginia Tech student was looking for an experience of the day-to-day operations of a cattle ranch, and the consultants knew he would be a good fit for Middle Creek.

"When it comes to mentoring students, Yates is the kind of guy we want to support," says Hugh Aljoe, Noble's director of producer relations. "He genuinely cares about people and the land, and both his actions and attitude are truly noble. He does everything with integrity and gratitude."

During his experience, Witmer cowboied up on the ranch in addition to taking 100 forage samples. He checked for forage quality as well as quality of the regrowth in pastures. He returned to Virginia that fall but the following June had the opportunity to return as a full-time employee of Middle Creek.

Witmer says it was the Adcocks' willingness to "do things out of the box" that drew him back. They focus on enhancing the native pasture while reducing inputs through their management practices, which include moving cattle every day and using high stock density grazing.

"I've become more ecologically minded after working here, more focused on the soil and grasses," says Witmer, who is now working toward a master's degree in integrated resource management with support from the ranch. "And the Adcocks are like family. I can ask them anything about ranching or about life."

Adcock maintains that he and Nancy get as much or more out of their relationships with interns and other employees. They swap ideas, experiences and laughter. They learn from what has worked and what did not, and they adjust to make the next day better.

"It's not like you've ever got it mastered," Adcock says. "That's what's humbling. But this land provides for people, and we want to make sure it can continue doing that long after we're gone." ■



GENTLE DOES IT
Yates Adcock uses low-stress cattle handling techniques while working a set of heifers that he and his team have brought closer to the house. They checked the heifers over before leading them to fresh pasture, where they would calve in the coming days.

WHAT NOBLE MEANS TO ME



Lloyd Noble

BUILDING A STRONG FOUNDATION

Lloyd Noble established Noble Research Institute (originally named The Samuel Roberts Noble Foundation) in 1945 to help revitalize agriculture after the Dust Bowl. Noble charged his new institution with benefiting mankind by assisting agricultural producers.

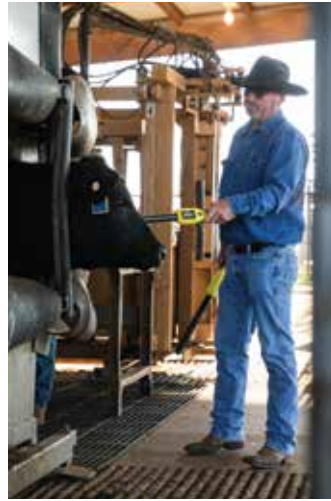
The organization's early efforts focused on educating and encouraging area farmers and ranchers to practice land stewardship and resource conservation. Noble knew that proper soil management would help prevent another Dust Bowl and ultimately secure the land for future generations.

While each era brings a unique set of challenges and equally novel solutions, Noble Research Institute's purpose remains steadfast — safeguard the soil and help agricultural producers advance land stewardship practices.

Being "Noble" is a way of life at Noble Research Institute. Here is what members of Team Noble have to say about it:

“Being Noble means knowing that in some small way, I am part of a team that exists solely for the purpose of assisting resource managers to be more sustainable in their enterprise.”

—DEVLON FORD
Cattle and Technology Research Associate



“To me, Noble means generosity that is so bountiful that it inspires you each day to pay it forward.”

—ELISON BLANCAFLOR, PH.D.
Professor, Plant Cell Biology



“Being Noble means helping others in work and in the community. It means following in the footsteps of our founder, Lloyd Noble, by doing well, wholeheartedly.”

—BROOK GASKAMP
Adult Education Associate

“Being Noble, to me, is about service with a smile, being willing and available to help others, learning and accepting challenges, and doing everything I can to promote our mission and vision.

—LIZ ALDRIDGE
Executive Assistant to the CEO



“

To me, it means helping land managers be better stewards of the world's resources. We all love and depend on the land where we live. If I can help people improve their natural resources, society benefits as a whole.

If I can play a small part in improving our natural resources, I know I have succeeded in my career.”

—WILL MOSELEY
Wildlife and Fisheries Consultant



7 BE NOBLE

CAROLYN YOUNG, PH.D.
Professor, Mycology

“Carolyn gives outstanding community service in the areas of outreach, such as education and journal leadership. Stepping forward to be the editor-in-chief of a new scientific journal is a daunting prospect, which takes courage, energy and commitment — all which are attributes of Noble’s core values.”

—MICHAEL UDVARDI, PH.D.
Chief Scientific Officer



BILLY PHELPS
Communications and Collaborative
Technology Coordinator

“Billy’s service to this organization is tremendous. He is always willing to help someone whether it is for work or personal needs, no matter the circumstance.”

—ANDREW BANCROFT
Data Technologies
Supervisor

THOSE WHO ARE NOBLE

Noble people do not seek the spotlight. They quietly express their values and work ethic without need of being recognized, but their example proves to be an inspiration to those around them. When asked who embodies the value of being noble, Noble employees shared the following about their co-workers.

BARBARA NOVA-FRANCO, PH.D.
Postdoctoral Fellow

“Barbara is very active and helpful in serving the postdoctoral group. She’s been an advocate for additional development and training opportunities for the group. In addition, she initiated and coordinated Noble relief efforts after the central Mexico earthquake in 2017.”

—JEREMEY BELL
Senior Human Resources
Generalist



ALEX MARRIS
Glass Washer

“Alex is the quiet engine of Noble. He has an interest in all of the equipment and people in each lab. He has learned all about the inner workings of the equipment he uses and has been able to provide valuable input and advice to researchers on multiple occasions. He’s always busy, and his ‘pastoral care’ is most impressive. He befriends new staff, particularly international ones. He often helps them move in and out of their houses and is a frequent participant in social activities off-campus for the summer scholars and others.”

—DAVID McSWEENEY
Biosafety and Greenhouse
Research Manager



PERDEEP MEHTA, PH.D.
Scientific Computing Manager

“Perdeep is one of the most generous people you will ever meet, and it bubbles up from the deepest part of who he is. He is a passionate advocate for our researchers and will dig deep to find solutions to challenges they are facing, long after others have given up. He is often quiet and lets others have the spotlight; he prefers instead to be a connector of people and takes a service-oriented leadership role in his approach to work. His smile and laugh will leave you feeling like you are truly blessed to be alive in that very moment. What better way to be Noble than to better mankind one interaction at a time?”

—MELANIE DAVIS
Director of Enterprise Systems and Informatics

GAYLE DONICA
Human Resources Manager

“Gayle’s genuine spirit comes through with every interaction. She is generous with her time, listens, encourages and demonstrates great empathy for others. Employees seek her counsel and her friendship. She is a rock; she takes on work, regardless of if it is routine, complex or last minute; and her response is ‘we can do it’ with a smile on her face. Beyond Gayle’s diligence on behalf of Noble, she actively serves in her church and other nonprofits in the community. She is attentive to her parents, supports her husband on their ranch, and raised four great kids.”

—TEAL PEMBERTON
Director of Human Resources



INSTITUTIONAL GOVERNANCE AND

FINANCIAL REPORT

2018

INCLUDES:

2018 Financial Report

Institutional Governance

Governing Body

Institutional Donor List

Leadership Team

Nonresident Fellows

STATEMENT OF FINANCIAL POSITION

ASSETS	As of Dec. 31, 2018
Cash	\$6,452,299
Accounts receivable and other assets	2,412,675
Prepaid expenses	1,040,329
Marketable securities, at fair value	
U.S. government securities	21,043,680
Corporate securities	35,831,133
Mutual and commingled funds	8,144,994
Total marketable securities	65,019,807
Property and equipment, net of accumulated depreciation of \$78,707,931	97,275,245
TOTAL ASSETS	\$172,200,355
LIABILITIES	
Accounts payable and accrued expenses	\$3,934,759
Notes payable	1,100,000
Liability for pension and post-retirement medical benefits	11,265,223
TOTAL LIABILITIES	16,299,982
NET ASSETS	
Net assets without donor restrictions	155,900,373
TOTAL NET ASSETS	155,900,373
TOTAL LIABILITIES AND NET ASSETS	\$172,200,355

This information was derived from Noble Research Institute's annual financial statements for 2018, which were audited by the independent accounting firm of Grant Thornton LLP. A complete picture of Noble Research Institute's financial position and results of operations can only be obtained by reviewing the annual financial statements in their entirety. Please contact Noble Research Institute if you would like a copy of the complete financial statements.

STATEMENT OF ACTIVITIES AND CHANGES IN NET ASSETS

NET ASSETS WITHOUT DONOR RESTRICTIONS	Year Ended 2018
Revenues, gains and losses:	
Interest	\$14,001
Dividends	340,158
Net realized gains on investments	80,865
Net unrealized loss on investments	(86,907)
Grant and contribution revenue	201,000
Other miscellaneous program income	6,349,483
TOTAL REVENUES, GAINS AND LOSSES	6,898,600
Program service expenses:	
Research	47,211,738
Consultation and education	11,191,306
Total program service expenses	58,403,044
Operational support	3,815,107
Provision for federal and state taxes	(117,066)
TOTAL EXPENSES	62,101,085
EXPENSES IN EXCESS OF REVENUES, GAINS AND LOSSES	(55,202,485)
Gain on involuntary conversion	34,292,781
Pension and postretirement medical related charges other than net periodic costs	9,523,712
CHANGE IN NET ASSETS FROM OPERATIONS	(11,385,992)
NET ASSETS, BEGINNING OF YEAR	167,286,365
NET ASSETS, END OF YEAR	\$155,900,373

INSTITUTIONAL GOVERNANCE

Role of the Member/Manager

The Samuel Roberts Noble Foundation serves as the sole member/manager of Noble Research Institute, LLC, an Oklahoma, nonprofit single-member limited liability company.

The Samuel Roberts Noble Foundation provides the leadership for Noble Research Institute to carry out its charitable purposes, act as a good steward of its resources, and conduct and support its activities in accordance with the vision of founder Lloyd Noble. The Samuel Roberts Noble Foundation further directs management to formalize and implement Noble Research Institute's strategic plan.

The Samuel Roberts Noble Foundation, as the member/manager of Noble Research Institute, and the employees of Noble Research Institute acknowledge and agree that the following principles apply to our association with and the activities we conduct on behalf of Noble Research Institute:

1. Noble Research Institute exists because of the vision and generosity of our founder, Lloyd Noble.
2. We are stewards of the resources and the vision of Lloyd Noble.
3. Our conduct will be fair and honest, and our activities will adhere to the purposes for which Noble Research Institute was established.

Corporate Documents

The organization's current articles of organization and operating agreement can be found at noble.org/about/governance.

Annual Internal Revenue Service Informational Return

Noble Research Institute, LLC annually files a 990-PF informational return with the Internal Revenue Service. Noble Research Institute's current 990-PF may be downloaded at noble.org/about/governance. Historical returns for Noble Research Institute are available at guidestar.org.



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A. Jill Wallace
Vice President and Chief Financial Officer

Hugh Aljoe
Director of Producer Relations

Alexis Carter-Black
Director of Development

M. Teal Pemberton
Director of Human Resources

NONRESIDENT FELLOWS

The Nonresident Fellows program brings together a distinguished panel of scientists, researchers and industry leaders to assist Noble Research Institute. These outside reviewers perform candid examinations of programs, offer objective advice and guidance, and provide fresh perspectives.

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Beef Marketing Group (BMG)

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Iowa State University

Gary Stacey, Ph.D.
University of Missouri

James Grimsley
DII, LLC

Jonathan Lynch, Ph.D.
Penn State University

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The Scripps Research Institute

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University of California-Berkeley

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Gladstone Institutes

Barbara Valent, Ph.D.
Kansas State University

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University of Wisconsin-Madison

Chip Ramsey
Rex Ranch

Tom Woodward, Ph.D.
Woodward Cattle Company

Jimmy W. Kinder
Kinder Farms

Lynn Sollenberger, Ph.D.
University of Florida

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