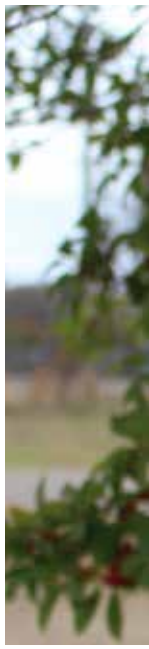
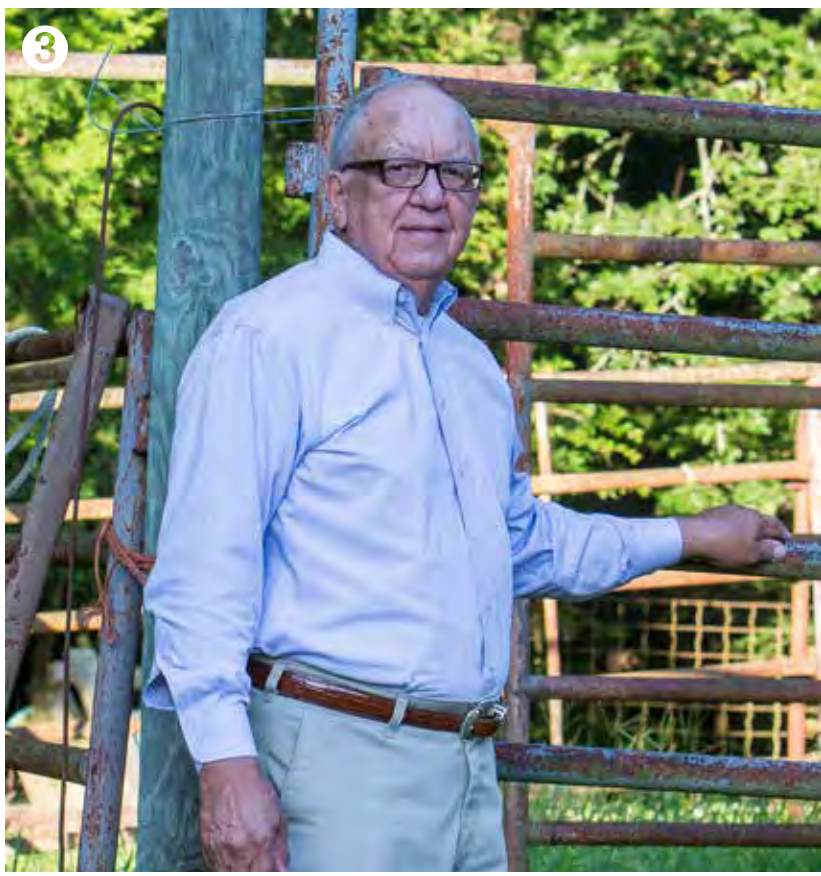
LEADERS IN Agriculture



CALS ALUMNI HELP FEED, CLOTHE, AND CARE FOR THE WORLD

BY VANESSA BEESON AND REAGON POSTON



EACH YEAR, we feature CALS alumni who are leaders in their respective fields, doing their part to help feed, clothe, and care for the world. Leaders in agriculture extend far beyond the farm and the scope of private industry. We refer to them as Leaders in Ag, as they all have a degree from the College of Agriculture and Life Sciences. This year's Leaders in Ag serve in various capacities from helming an institution of higher learning and leading the charge for research to fight global food insecurity to conducting important work for an international agency serving global humanitarian efforts to leading an association that supports the state's livestock producers to growing a crop that offsets the effects of environmental disasters. This year, our Leaders in Ag are **DR. MARK E. KEENUM**, president of Mississippi State University; **DR. PETER KLINCK**, who served as an agronomist and seed specialist for the International Committee of the Red Cross; **SAMMY BLOSSOM**, seasoned cattleman who spent decades as executive director of the Mississippi Cattlemen's Association; and **GABRIELA BRASHER**, longtime farmer who grows a value-added crop to help mitigate oil spills.

1. Gabriela Brasher, a farmer who grows a specialty crop to mitigate oil spills.
2. Peter cleaning apple cider wine bottles with his son, Duncan. The Klinck family maintains 150 wild apple trees used for sweet cider and sparkling cider wine.
3. Sammy Blossom, cattleman and former executive director of the Mississippi Cattlemen's Association.
4. Dr. Mark E. Keenum, Mississippi State University president.

MARK E. KEENUM

FROM PROVIDING CRITICAL INSIGHT for Mississippi's fledging catfish industry in the 1980s to molding MSU into the globally-relevant research engine it is today, **DR. MARK E. KEENUM** is passionate about feeding the world.

The Starkville native, who grew up in Corinth, earned three agricultural economics degrees in MSU's College of Agriculture and Life Sciences, graduating with bachelor's, master's, and doctoral degrees in 1983, 84, and 88, respectively.

Keenum, who grew up in an ag family with a dad who worked for the U.S. Department of Agriculture for 30-plus years, originally sought to earn an accounting degree but chose another major a few classes in.

"A friend told me about the agricultural business major in the agricultural economics department, which intrigued me because it married my dual interests of agriculture and business," Keenum said.

The switch proved auspicious as he would continue on earning his master's and doctoral degrees in the subject while working as a marketing specialist for the MSU Extension Service and a research associate for the Mississippi Agricultural and Forestry Experiment Station.

For his master's and doctoral degrees, Keenum studied the economics of aquaculture, specifically, Mississippi's catfish industry, which was just taking off at that time.

"My dissertation resulted in two publications on Mississippi's catfish industry, including an extensive cash flow analysis. We published 20,000 copies of that analysis because there was a huge demand for economic information about the catfish industry," Keenum said.

Upon finishing his doctorate, he joined the agricultural economics department as a faculty member until a role as an advisor for U.S. Senator Thad Cochran took him to Washington, D.C. Keenum went on to work for the senator for 18 years, eventually becoming his Chief of Staff and noted that his service in this position, in particular, molded him into the leader he is today more than anything else.

"I watched Senator Cochran make decisions in good times and bad, working with him through 9/11 and Hurricane Katrina, and other major economic crises in our country," Keenum said. "He kept an even keel, and listened to and treated people with respect and dignity always. I admired his ability to manage and lead and it was a real blessing to get to spend as much time with him as I did."

While working with Senator Cochran helped hone his leadership skills, Keenum's time as Undersecretary of the U.S. Department of Agriculture, under President George W. Bush, ignited his passion for global food security.

"My role included oversight of the Foreign Agricultural Service and its humanitarian feeding programs, so I traveled to developing countries and saw how our work fed people who, in some cases, would not have survived had it not been for the support of our U.S. citizens and the programs we were administering. That created in me a burning passion to do more to feed people and help them feed themselves globally," he said.

One program Keenum spearheaded in that position was the Stocks-for-Food Initiative administered by USDA's Food and Nutrition Service and the Farm Service Agency. The Secretary of Agriculture at the time asked Keenum to find a way to help California migrant workers who were displaced by a severe drought.

Since Keenum was also in charge of the Farm Service Agency, which manages domestic agricultural programs, he oversaw stores of government-owned commodities including corn, cotton, soybeans, rice, wheat, and peanuts that had been put up as collateral for marketing assistant loans to farmers. Keenum and his team devised a way to trade these commodities for finished food products, the first transaction of which included trading tons of raw peanuts for thousands of jars of peanut butter.

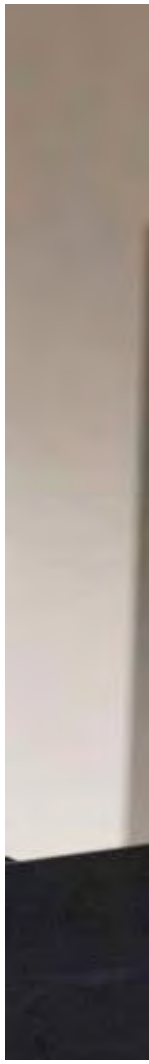
"The response was overwhelming. We were able to create a barter system where we swapped the raw commodity for a processed finished product that could be delivered directly to a USDA food distribution center," he said.

The Stocks-for-Food Initiative worked so well, $120 million in bulk commodities were traded for finished food products the first year. Eighty percent of the food was distributed domestically through the USDA while 20 percent was dispersed internationally through the McGovern-Dole Food for Education Program.

"I've very proud of the Stocks-for-Food Initiative. They say necessity is the mother of innovation. There was a need and we figured out how to meet that need through a unique method that had never been done before," said Keenum, who received America's Second Harvest's highest honor, Hunger's Hope for distinguished public service, in 2008 because of his involvement initiating the program.

As MSU president for the past 12 years, Keenum continues to make global food security a major priority for himself and for the land-grant institution he helms.

In 2010, Keenum helped create a partnership between the United Nation's Food and Agriculture Organization, or FAO, and MSU. For the past decade, the collaboration has addressed animal and veterinary public health, plant health, fish health, food safety, and nutrition programs while providing the opportunity for MSU students to engage in FAO-sponsored programs around the



Dr. Mark E. Keenum (photo by Megan Bean)

world. In 2014, FAO recognized MSU as a Center of Knowledge and a member of the Global Aquaculture Advancement Partnership. In 2018, the university was selected to be a Candidate FAO Reference Center on Aquaculture Biosecurity and Antimicrobial Resistance. MSU is also engaged in meaningful work with the U.S. Agency for International Development, or USAID, which selected MSU to lead the Feed the Future Innovation Lab for Fish that same year. For several years, the university has been an important partner of USAID's Feed the Future Innovation Lab for Soybean Value Chain Research at the University of Illinois and is engaged in the Feed the Future Innovation Lab for Livestock Systems at the University of Florida.

Currently, Keenum serves as chairman of both the Foundation for Food and Agriculture Research and the Board of International Food and Agricultural Development.

"It is a real labor of love for me to be involved in working in innovative fields of science focused on how we can produce more agricultural products, including row crops, livestock, and aquaculture in a more efficient and effective way so that we can feed the world," Keenum said.

As he continues to help lead the fight in global food security, Keenum says there is still more to do.

"When I talk to high school and college students today who are products of the 21st century, I tell them while they'll see many exciting advances in science, technology, and medicine, they will also see the world change and evolve," said Keenum, noting that the world population is expected to increase from 7.5 billion to 10 billion by 2050.

"We have a hard time feeding everyone on our planet in 2020. How we feed another three billion people that will be coming to our global dinner table in the span of three short decades is going to be a huge challenge for these young people. This is their future and what they'll be challenged with."

Keenum said agriculture will continue to be a key aspect in solving that challenge.

"Research our world class scientists are doing right here at MSU will help advance agricultural production to meet these growing needs," he said.

SAMMY BLOSSOM

Mr. Sammy Blossom (photo by Mississippi Farm Bureau Federation)

BEING A CATTLEMAN is a world **SAMMY BLOSSOM** has always known. The 1970 animal science alumnus who grew up on a small cattle and sheep farm in Scott County, Mississippi, would end up serving the state's cattlemen for 16 years as executive director of the Mississippi Cattlemen's Association.

As executive director, Blossom was in charge of the day-to-day operations of both the Mississippi Cattlemen's Association and the Mississippi Beef Council. The association addresses local, state, and federal issues that impact the long-term viability of Mississippi cattlemen while the council administers programs of beef promotion, education, research, and consumer and industry information.

Blossom said his favorite part of the role was the chance to meet with cattle farmers regularly.

"With about 14,000 cattlemen and women throughout Mississippi, I had a chance to meet a lot of them over the years. I loved visiting farms and seeing what the operations were like," he said.

Blossom's work included lobbying for issues important to cattlemen at the state and federal level and helping the 60-plus county cattlemen's associations be successful. The team organized annual meetings and events, published a monthly magazine, and ran the Beef Barn concession stand at the Dixie National Livestock Show and Rodeo and the Mississippi State Fair. Blossom retired in 2016 and received the Distinguished Service Award from the Mississippi Farm Bureau Federation, the organization's highest honor, that same year.

He considers his work with the Mississippi Cattlemen's Foundation as one of his proudest accomplishments. In 2000, Blossom helped the organization fund a scholarship for the children and grandchildren of the state's cattlemen and women.

"Through the Mississippi Cattlemen's Foundation, money generated from the Mississippi cattlemen's car tag goes into an endowment that several people have funded. Earnings from that endowment allow us to award about $65,000 in scholarships annually that goes to about 50 students each year," Blossom said.

Prior to his time with the Mississippi Cattlemen's Association, Blossom managed cooperative supply stores in Louisiana and Mississippi for 22 years, spending 11 of those years at the Lowndes County Co-op in Columbus. It was there that his journey to executive director began when he volunteered to reenergize his local county cattlemen's association in the late 1980s.

"We moved back to Lowndes County in 1987. Joe Love was our county agent with the MSU Extension Service and he and I revived the cattlemen's association in our area. I went on to stay involved and was an area vice president and then served as state president. In 1998, I joined the staff."

Blossom, who managed cattle operations in Mississippi and Kentucky early in his career, has always kept cows. His participation in the FFA kicked off his journey to Mississippi State, where his time on the MSU Livestock Judging Team is what he remembers most fondly.

"The high point of my years at MSU were my experiences on the livestock judging team. The friends I made there and the trip to the national judging contest in Chicago are my best memories of college," he said. "The judging team is a great way for people to learn new skills, not just judging cattle, but public speaking, decision-making, and how to defend your ideas. I got a lot out of it and I still have friends today that I met during my time on the team."

Both FFA and livestock judging left such an impression on Blossom, that he continues to pay it forward, mentoring youth throughout his life, serving on the 4-H Foundation Board during his tenure with the Mississippi Cattlemen's Association, and still helping with FFA to this day.

"It's important for young people to be involved in these programs. They build a lot of life and leadership skills and gain a knowledge of hard work and dedication. With livestock programs they have to be responsible every day for the care, feeding, and grooming of those animals. It does something to build skills you can carry throughout your whole life," he said.

GABRIELA BRASHER

GABRIELA BRASHER, a 1985 Mississippi State soil science graduate and the proud co-owner of the kenaf-based business, Kengro, relocated more than 4,000 miles to follow her passion for agriculture.

Brasher grew up in Rümlang, Switzerland, next-door to a small dairy farm, where she got her first glimpse of farm life, and as she grew, so too did her desire to cultivate the land.

"Switzerland is very small, about a third of the area of Mississippi; there's limited farmlands, so if you want to farm, you pretty much have to immigrate. My father and I both wanted to farm, so when he saw a newspaper advertisement for farmlands near Minter City, Mississippi, he came to visit. Within the year, my father owned the property," Brasher said.

Though her father now owned the farm, it would be another two years before Brasher could finish high school and begin to forage her own path to Mississippi. In April of 1982, Brasher had the opportunity to spend the season with family friends in Bruce, who were also farmers, and by January of 1983, she was enrolled at Mississippi State to study soil science.

Brasher graduated in 1987 both with her master's degree in composite agronomy and a pioneer's spirit, one that was met in stride by her husband, Brent, a fellow MSU alum who she met at a cotton short course.

"Farmers are entrepreneurs. Even before we met, Brent and I were both looking for alternative crops that could be used to better the environment and set us apart in the agricultural market. When we were introduced to kenaf, we were amazed," Brasher said.

Kenaf is a tall-growing, value-added crop related to cotton and okra. Brasher shared that, with processing, the product is able to break down the hydrocarbons in oil spills and remain fully organic and compostable, making it a perfect choice for the environmentally-conscious.

Of course, the success they have with kenaf didn't come without a great deal of trial and error.

"When we first started working with the crop, we partnered with MSU on research. The university did a lot of research on kenaf, but they were a great help to us with the agronomics research, specifically. They helped us figure out what to do to optimize the growth of the plants, how best to fertilize, how to control pests," Brasher said.

Once they understood the intricacies of kenaf growing, the Brashers set out to start their company, Kengro. They've since opened a two-location operation that includes their 450-acre farm in Tallahatchie County and a separation plant in Charleston, Mississippi, where they separate the core fiber from the bark. The core fiber is processed into oil absorption and bioremediation products, and the bark is made into mats that protect against soil erosion and can control sediment. Brasher shared that, though the majority of their customers use the fiber product as an environmentally-friendly way to mitigate commercial oil spills it can also be used for oil cleanup in the garage. No matter the use, Kengro's products are entirely organic.

"I think what sets us apart from other companies with similar products is the fact that kenaf is both environmentally neutralizing and is a renewable resource. Other businesses might sell products that have to be mined or products that aren't biodegradable, but when we started Kengro, we were very conscientious about being as ecofriendly as possible," Brasher said.

There are challenges, however, with being in the oil clean-up industry, even with an ecofriendly product produced by Kengro. With COVID driving the price of oil to record-lows, there is less business for Brasher and her family.

"We're in a bit of a dilemma at the moment," Brasher said. "We've got a lot of overstock because of the unpredictable market this season, and we've got all the kenaf we planted last year when the market was normal."

Though the future is unpredictable for Brasher, she maintains the intrepid spirit that brought her across the ocean to live the American agriculturalist's dream. Beyond maintaining that spirit herself, she has passed it onto her children as well.

"All three of our children have contributed their strengths to Kengro. Our oldest daughter helped with supply chain and operational management, our youngest daughter whipped our online representation and social media presence into shape, and our son is very much hands-on with the farming. He's the only one I see continuing with the agricultural world, but our daughters are out striking their own paths in the business world," Brasher said. "If either of them decides to come back to agriculture, there's plenty of opportunities out there for determined women. It's lonely sometimes, but I've always had all the help and support in Mississippi State that I needed to reach my goals."

Mrs. Gabriela Brasher (photo submitted)

PETER KLINCK

WHETHER CULTIVATING seeds in war-torn nations or reaping the harvest on his own Vermont farm, **PETER KLINCK**, a '90 agronomy alumnus, has spent a lifetime committed to restoring and strengthening the integrity of local agriculture.

The Norwich, Vermont native began his humanitarian journey by volunteering for the United States Peace Corps in 1984.

His first assignment was an agricultural development project in Niger, where Klinck collaborated with the country's ministry of agriculture in one of their five seed multiplication centers, giving technical advice on a project designed by MSU. It was there that he crossed paths with Drs. James C. "Curt" Delouche and Warren Couvillion, former professors of seed technology and agricultural economics, respectively, working as consultants on the national cereal seed program. They encouraged Klinck to look into a master's program studying seed technology at Mississippi State.

After serving in the Peace Corps, Klinck took their advice and went on to earn a master's degree in agronomy focusing on seed technology from MSU.

By 1994, Klinck had returned to international humanitarian efforts in war-torn countries. He spent two years partnering with various non-governmental agencies working towards food sustainability in Kenya, Somalia, South Sudan, and Tanzania, before being recruited by the International Committee of the Red Cross for his seed technology background. He was sent to Sierra Leone to aid in the local seed procurement and distribution program.

"Other delegate agronomists employed by the Red Cross may not have seed technology training and often end up with seed varieties whose microecology doesn't always correspond to the targeted climate zone, resulting in poor harvests. The seed technology degree I earned from MSU allowed me to create onsite quality control seed selection and processing programs, and reintroduce locally-obtained cereal crops that rebuild the biodiversity toward pre-war levels," Klinck said.

Peter walking with his field officers, Mamadou and Edgar Mena, also with the Red Cross, to meet village elders to discuss agriculture assistance in the Paoua region of the Central African Republic in 2009. (photo submitted)

Klinck explained that the Red Cross—the first international humanitarian agency established in the world—is present in any given conflict zone to protect and assist victims of armed conflict while remaining impartial, politically neutral, and independent. Over the course of his 16 years as a dedicated ICRC seed technologist, Klinck made an impact on twelve countries and territories, where he honed the practice of seed distribution.

In Sierra Leone, his team distributed 1,200 metric tons of rice seed varieties to 40,000 households on two separate occasions. What made the endeavor so special was that the rice seed distributed were local varieties that Klinck had specifically procured from adjacent communities and quality-tested to ensure that they could be sustainably farmed in the future.

"The effort to reinstate the local biodiversity of crop species is important not only ecologically but also from a food sustainability standpoint. The varieties that grow native or were developed over generations on the land are those with which local farmers have the most knowledge and experience. Providing a high-quality variety means the communities are more able to continue cultivating in the future," Klinck said.

Klinck also invested his efforts in the former Soviet Union Republics of Georgia, Abkhazia, Armenia, and Azerbaijan, where the seed program he developed in Sierra Leone was again employed. Each country he visited saw Klinck investing in the economy and the community, which in turn, allowed their populations to gain back some purchasing power and reestablish the produce marketing structure.

Though Klinck has since retired from the International Committee of the Red Cross, his dedication both to local ecology and food sustainability has remained steadfast. He now owns and operates a 77-acre farmstead in Tunbridge, Vermont, where he maintains nearly 150 wild apple trees used for sweet cider and sparkling cider wine. He also participates in the current land use forest management program through the state of Vermont, where he manages the forests on his property following a local forester's consultant plan for species management and production, which includes wildlife habitat, wetland protection, and clean water.

"My plan, specifically, is for the management of hardwoods, which are important to the economy and ecology. It's a gradual plan over time, but hopefully one that can make a lasting impact for future harvests of mature timber," Klinck said. "It's not a big-business farm, but it's as sustainable or self-sufficient as one could hope."