

COOPERATIVE CONNECTIONS

Old Spink New Spink

**SD restaurants roll
with the changes**
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drought**
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Joyce Schermer,
Karisma Tripp and Brad
and Lori Johannsen are
shown at Spink Family
Restaurant in Elk Point



Local students participate in Connect Con youth leadership experience



Abigail Reil is shown taking a ride in a bucket truck at Butte Electric in Spearfish.

Abigail Reil, Chad Kolden, Aubrie Hartley and Allison Meland were among 26 high school students from across the state to participate in Connect Con: A Youth Leadership Experience on July 26-29.

The event was sponsored by Codington-Clark Electric as part of the cooperative's ongoing commitment to education and youth development.

The conference agenda was packed with hands-on activities, social interaction and informational presentations on electrical power production, energy conservation, renewable sources of power and much more.

Based at Black Hills State University, the students received a tour of the Spearfish Hydro Plant as well as Butte Electric Cooperative where the young leaders received an electric safety demonstration, learned about various safety equipment typically used by electric utility linemen and were lifted nearly 50 feet into the air in a hydraulic bucket.

Codington-Clark Electric General Manager Dave Eide noted that conference attendees learned about the cooperative business model and how electric cooperatives provide safe, reliable, affordable power to more than 125,000 homes and businesses across the state.

"The electric power industry is changing rapidly with new technology being introduced on a regular basis and a greater emphasis on renewable resources such as wind and solar," he said. "This was an important program because one day these students will be involved in the process as ratepayers and as voters."

Delivering presentations to the group were Congressman Dusty Johnson, motivational speaker Scyller Borglum, SDSU Department of Electrical Engineering chairman Dr. Sid Suryanarayanan and leadership coach Malcom Chapman.

The original Youth Tour to Washington, D.C., was canceled this year due to COVID-19.



Chad Kolden tries on a lineman's tool belt while Abigail Reil looks on at left.



Above/left, Aubrie Hartley gives a thumbs up; above, Aubrie has fun with friends during a tour of the Fish Hatchery in Spearfish.



Abigail Reil, left, and Allison Meland, second from left, participate in a group exercise at Connect Con.

**COOPERATIVE
CONNECTIONS****CODINGTON-CLARK
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www.ccelectric.coop

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The benefits of choosing an electric water heater

As expected, most people don't think much about water heaters. They take for granted that they make it possible to have hot showers, clean dinner dishes and enjoy load upon load of freshly laundered linens. The lonely water heater, tucked away in the basement or a utility closet, is out of sight and out of mind.

There are times, however, when your attention turns to that most essential of appliances: when an existing water heater breaks ("Brrr. That water is cold!") or when building or renovating a home.

At those times, a homeowner will make a decision that has consequences that persist for a decade or two, maybe longer. Your water-heating choice will have implications for energy efficiency, cost of use, the environment, safety and reliability. As a trusted energy advisor, Codington-Clark Electric can help you make the right decision.

As a member of the cooperative, you might already know about many of the advantages and

benefits of electric water heaters. First, electric water heaters are safe. There is no threat of carbon monoxide poisoning, combustion or explosion. Electric water heaters are environmentally friendly and capable of using electricity generated from solar, wind, hydro and other renewable sources.

Electric water heaters are also easy to install, requiring no expensive gas lines, exhaust flue or on-site fuel tanks. Compared to other fuels, the cost of electricity is stable.

In addition, electric water heaters are emerging as a building block of the future electric grid. These formerly mundane units are evolving into smart appliances and energy storage units that are helping the grid become more stable and more efficient. By heating water when demand for electricity is low and storing the thermal energy for later use, electric water heaters can save you money.

If you have questions, give us a call at (605) 886-5848. We're here to be your trusted energy provider.

**Codington-Clark Electric has
Marathon® lifetime warranty
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100-gallon tank rebate = \$600

85-gallon tank rebate = \$510

Monthly electric bill credit = \$5

*Must be connected to a load management device
to receive the rebate and bill credit.*

**Please call us at 605-886-5848
for details.**



Be aware of overhead power lines on farms

Powerlines pose a major hazard for South Dakota farmers. Lines over roads and rural areas have a minimum clearance of 18 feet but just 12.5 feet over residential private property.

Before working in a field or around shops or grain bins, always take the time to note the location of your cooperative's power lines so that you can make sure to remain a safe distance from them and stay free from harm. To stay safe around overhead power lines, farm operators and workers must:

- Always use a spotter when operating large machinery near utility power lines.
- Use extra caution when raising augers or grain truck beds around co-op power lines.
- Keep equipment at least 10 feet from power lines - at all times, and in all directions.
- Inspect the height of farm equipment to determine the proper clearance.
- Always lower extensions to the lowest setting when moving loads.
- Never attempt to move a power line out of the way or raise it to get added clearance.
- Call your electric cooperative immediately if a power line is sagging or is

hanging too low.

- If contact is made with a power line, remember that it is almost always safest to stay on the equipment. Make sure to warn others to stay away and call the cooperative immediately.

- The only reason to decide to make an exit is if the equipment is on fire. If this is the case, then remember to jump off the equipment with both of your feet together, avoiding touching the ground and vehicle at the same time.

Then, still keeping your feet together, "bunny hop" away from the vehicle until you reach a safe distance.

If you see someone else's equipment that has come in contact with a power line in your area, the best help you can give will be from a safe distance.

Make sure to yell out to, signal or call the equipment operator to make sure he or she remains in the vehicle, and notify your local cooperative immediately.

Please remember to follow these tips to avoid accidents during the harvest season.

TIPS FOR A SAFE HARVEST



The Upper Midwest Agricultural Safety and Health Center offers this useful checklist for farm safety called Stop-Think-Act. Take these steps to minimize injury risks during harvest season.

Stop

- What could go wrong?
- How bad could it be?
- Has anything changed?

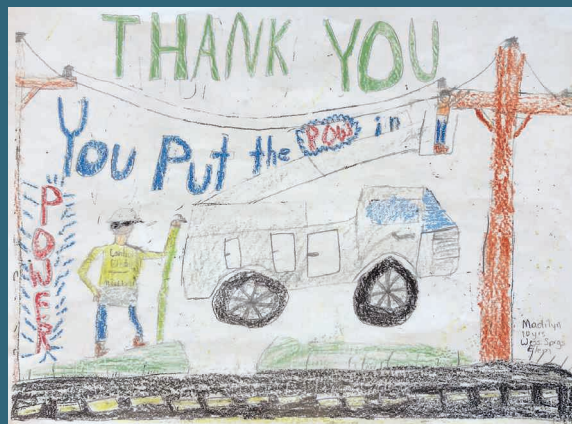
Think

- Do I clearly understand the task?
- Am I physically and mentally ready?

- Do I have the right equipment and tools for the job?

Act

- Make it safe.
- Use the right tools.
- Follow proper procedures.
- Reduce risks.
- Stop the task if it cannot be done safely.



You put the 'pow' in power!

Madilyn Gaikowski

Madilyn sends out a special note of appreciation for line workers across the state of South Dakota. She is the daughter of Gene and Loree Gaikowski. Gene serves as the Wessington Springs line foreman at Central Electric in Mitchell.

Kids, send your drawing with an electrical safety tip to your local electric cooperative (address found on Page 3). If your poster is published, you'll receive a prize. All entries must include your name, age, mailing address and the names of your parents. Colored drawings are encouraged.



CROCKPOT CRAVINGS

CROCKPOT APPLE BUTTER**Ingredients:**

4 cups of sugar (more or less depending on sweetness of apples)
4 tsp. cinnamon
¼ tsp. cloves
¼ tsp. salt

METHOD

Fill a 5 quart crockpot full of chopped apples (quartered or smaller), no need to peel, but do remove seeds. Tart apples are best. Top with the ingredients above. Lid won't fit at first but settles down as apples cook. Begin cooking on high and when bubbling, put heat on low and cook all night, or until thick and dark color. Stir occasionally. If need be, blend a few seconds to soften peels. Pour into jars and seal.

Cherie Leibel, Timber Lake

SLOW COOKER BEEF STEW**Ingredients:**

3 cups water
1 package McCormick® Classic Beef Stew Seasoning Mix Packet
2 lbs beef stew meat, cut into 1-inch pieces
1/4 cup flour
2 cups potato chunks
1 1/4 cups carrot chunks
1 medium onion, cut into thin wedges
1/2 cup sliced celery

METHOD

Mix vegetables, water and Beef Stew Seasoning Mix in slow cooker. Coat beef with flour. Stir into ingredients in slow cooker. Cover. Cook 8 hours on low or 5 hours on high until beef is tender.

mccormick.com

CROCKPOT BUTTERNUT SQUASH WITH APPLES**Ingredients:**

1 ½ to 2 lbs. butternut squash, peeled and chopped (about 5 cups)
2 to 3 tart apples, chopped (about 2 cups)
¼ c. dried cherries or cranberries
1 ½ tsp. grated fresh ginger
½ tsp. salt
1/8 tsp. pepper
½ tsp. cinnamon
¼ tsp. nutmeg
½ c. apple cider
¼ tsp. salt

METHOD

Combine all ingredients in your slow cooker and stir together. Cover and cook on low 3-4 hours or until squash is tender, then turn to warm until serving. Can also be baked in conventional oven at 325 degrees until fork tender. Sweet potatoes can be used instead of butternut squash if desired.

Linda Sherry, Sioux Falls

Please send your favorite dairy recipes to your local electric cooperative (address found on Page 3). Each recipe printed will be entered into a drawing for a prize in December 2021. All entries must include your name, mailing address, phone number and cooperative name.

Dear Pat: I was an electric vehicle skeptic, but I just saw an announcement of the all-electric Ford F150 Lightning. I didn't realize electric pickups could be this compelling or competitive. Are there other electric pickups or SUVs coming out soon? - Mike



Pat Keegan
Collaborative
Efficiency



Brad Thiessen
Collaborative
Efficiency

Electric SUVs are available now and pickups will be soon. This development has been anticipated for years. Electric vehicle (EV) sales are about 24 times higher than they were 10 years ago, with several factors driving demand:

- The instant torque from electric motors boosts acceleration.
- The low center of gravity improves handling and reduces rollover risk.
- The superior traction control of electric motors can increase off-road capability and safety in winter.
- The upfront cost of an EV purchase is now more competitive with similar internal combustion models, and most EVs qualify for a federal tax credit of up to \$7,500.
- The cheaper operating fuel cost per mile (for electricity) compared to gasoline or diesel is another attractive feature for drivers.

Ford's electric F150 Lightning is scheduled to arrive in spring 2022, starting under \$40,000 for the commercial trim package (230-mile range model). A 300+ mile battery is an option, and all models are 4X4 with respectable towing and payload capacities. The Lightning is also equipped to provide 9.6kW of home backup power or portable power for a jobsite.

Tesla has more than a million preorders for their new Cybertruck, which will likely arrive in 2022. The 250-mile range 2WD model starts under \$40,000 and steps up to \$50,000 for the 300-mile range 4WD model. Tesla plans to offer a 500+ mile range version

for \$70,000 that can tow more than 14,000 pounds.

GMC has announced a late 2021 release of an electric Hummer with 1,000 horsepower and additional features for off-road performance.

Rivian, a startup backed by billions of dollars from Ford and Amazon, is planning to unveil their R1T electric pickup later this year.

Crossover SUVs (CUVs) are one of the most popular types of vehicles, and a number of manufacturers say they'll have electric models available soon. Ford's Mustang Mach-E is actually available now with a range up to 305 miles, starting at \$45,000. Volkswagen's ID4 CUV starts at \$40,000 and is available with AWD options. More electric SUVs are coming, including Rivian's R1S, Nissan's Ariya and Volkswagen's six-passenger ID6.

Tesla has more than a million preorders for their new Cybertruck, which will likely arrive in 2022.

And it's not just vehicles that are shifting to electric. Electric snow machines and jet skis are arriving soon. Even large construction equipment like excavators, backhoes and heavy-duty trucks will have electrically fueled models.

One remaining hurdle for increased EV adoption in rural areas is fast, sufficient charging for longer trips. Most EV owners charge at home, but more fast-charge stations on rural highways will be helpful.

If you're interested in an EV, talk to your electric co-op. They may offer special EV rates or rebates.

REZA BURNS

Brookings native and rising magician puts SD on the entertainment map

Billy Gibson

billy.gibson@sdrea.coop

While most of his peers at Brookings High School were playing sports, hunting and entering rodeo events, Reza Borchardt was venturing off in a completely different direction.

He was pursuing his childhood dream of becoming a magician and master illusionist in the style of his idol David Copperfield. From the time Reza (pronounced ray-zuh) got his first magic kit, he was determined to make a life and a living in the world of entertainment.

Today, Reza is on the tail end of a 140-day stretch captivating audiences at Branson's Famous Theater and making a big name for himself across the globe. In addition to touring extensively to more than 30 countries, Reza has made appearances on A&E's popular Duck Dynasty show and the CW network's Penn & Teller: Fool Us.

It all began for Reza in elementary school when he was asked to go on stage during a magic act. When he saw the response the magician was getting from the audience, that's when he caught the bug. By the age of 14, Reza was performing magic acts of his own and was inspired after meeting Copperfield in person on several occasions during his youth. By the time he was in college at SDSU, Reza was already touring across the region performing at corporate events and concert halls.

"When I got asked to go on stage and the guy was doing a simple trick with rings, it seemed like a really big deal. The kids were into it," Reza remembered. "That laid the groundwork for me. My parents bought me a magic kit and took me to see professional shows in Branson. I started building props and putting together an act in a warehouse in Brookings and started traveling and having some success."

When he was able to sell 200,000 tickets over 40 shows at a theater in Acapulco, that's when he had a hunch he could make it as a pro.

But Reza is savvy enough to know that the key to sustaining success in the business is reinventing his act and conceiving new ways to keep and hold the attention of audience members. That's how Copperfield was able to reach legendary status, he said.

"You have to find a way to keep making your brand relevant and keep your show exciting. People have so much sensory overload and the ways we receive information is moving so fast. So, I'm constantly updating the show and elevating the art form," he said. "I still film every show and watch it and critique it and look for ways to improve."

On stage, Reza carves out time to mention his South Dakota background and share stories of growing up in Brookings on the "cornfield side of the state." In some ways, he sees himself as an ambassador for South Dakota.

"I want to always remember my humble beginnings and how excited I was to be that kid who had dreams and plans," he said. "It's a vision that I saw happening, and now it has come true. And to think it all started in South Dakota...that's insane."





Rhonda Otten, along with her husband and three sons, has worked to keep Spink Family Restaurant open for business.
Photos by Billy Gibson

Spink restaurant emerges strong from hardships brought by fire and pandemic

Billy Gibson

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Old Spink. New Spink.

That's how Rhonda Otten variously refers to her restaurant, depending on whether she's alluding to the Spink Café that burned down in 2019 or the Spink Family restaurant that was throttled by the pandemic but is thriving today.

For more than 20 years, the Spink Café was a big draw in the township located in Union County. The eatery was known for its Friday night fish fries during Lent, Sunday dinners and its famous Spinkburger. The 80-year-old structure had recently been re-decorated with a 50s theme, featuring old LPs, vinyl album covers on the wall and pictures of Elvis Presley.

But life for Otten and her husband Sam changed in November of 2019 when the area's most

popular attraction was totally consumed by fire.

The way the Ottens saw it, there was no option but to rebuild. But the planned resurrection of the business wouldn't occur in the confines of Spink. The new iteration, renamed Spink Family Restaurant, would be located in the old American Legion hall in downtown Elk Point.

By all accounts, the "new Spink" wasn't so easy to bring forth from the ashes. Two weeks after working hard to get the new facility ready for business in Elk Point, the pandemic hit and threatened to dash the Ottens' hopes for good.

"The fire was in November, we made the decision to keep going in December, and we re-opened in March. We were open for two weeks when the pandemic hit, Rhonda said. "Those two weeks were very, very busy. It was a madhouse in

here. We had a lot more space and we were finally getting in the groove."

Facing the same problems as just about every restaurant owner in the state and nation, the Ottens were forced to hit the pause button and try to figure out the next step to take. They closed for a month, regrouped, and then returned to offer carry-out service only.

Members of the community rallied to support the restaurant, including employees at Union County Electric located just two blocks away.

According to Union County Electric General Manager Matt Klein, the cooperative always strives to support other local businesses that help the community thrive.

"At lunchtime you're likely to see some of our guys eating there," Klein said. "When they had carry-out, we ordered food for meetings and just did what we could to help – just like we do with other members of the community. We help whenever and wherever we can."



Server Karisma Tripp tends to another satisfied customer at Spink Family Restaurant in Elk Point.

Rhonda said it was inspiring to see the town pull together to face the impact of the pandemic, and also to help the business survive after the back-to-back calamities.



Cody Olson, center, enjoys lunch with his co-workers from Valley Ag Supply.

“The community really supported us and we’re very grateful for that,” she said. “But we’ve seen this many times before; people watching out for each other and helping when there’s a need. That’s what really pushed us through.”

One regular patron who is happy to see the new Spink succeeding is Joyce Schermer. She occupied a table in the restaurant one recent lunch hour along with her son Brad Johannsen and his wife Lori. The Johannsens are regular visitors to the

area from Sedona, Ariz., and always make a point to stop at Spink, preferring the hot beef sandwich and the prime rib sandwich.

“It’s always good every time you come,” said Schermer, a resident of Akron who opted for her go-to French Dip. “You’re never disappointed in the food or the service. It’s wonderful.”

Also enjoying a lunchtime meal were several employees of Valley Ag Supply. The company is located a half mile from the old Spink building that was destroyed by fire.

“We used to go there all the time and we were disappointed when it burned down. You could see our fertilizer plant from there,” said Cody Olson while noshing on the French Dip. “Now there’s no place to go. So, we just drive into town because it’s so good. It’s great that they came back and are still operating.”

As for “old Spink,” the Ottens are still trying to figure out what to do with the heap left in the wake of the conflagration. The building had an upstairs apartment where several members of the family lived at



various times through the years.

“It’s going to have to be torn down eventually, but we just don’t want to let it go,” Rhonda said. “There are so many memories attached to that place; both of our parents were such a big part of it.”

She emphasized that while the restaurant is in a new location, the food is the same as before. The Ottens, who have always used family recipes, depend on all three of their sons – ages 17 through 23 – to handle the cooking to maintain consistency on a daily basis.

“The secret to our success is that the five of us do all the cooking here. We use time-proven family recipes that have been popular for decades,” Rhonda said.

Codington-Clark linemen receive pole-top rescue training

Line personnel from Codington-Clark Electric received training at a recent safety meeting on pole top and aerial truck rescue from Travis Denison, Loss Control Professional for the South Dakota Rural Electric Association.

This is an annual training requirement for all line workers. During the safety meeting Travis inspected the crew's personal equipment, reviewed safety practices in regard to an aerial or pole top rescue and talked about any close calls or near misses.

Having completed the pole top rescue, the crews then performed the required annual electrical dielectric test of Codington-Clark Electric's bucket and digger trucks. Dielectric testing verifies the electrical insulation strength of the truck. To complete the dielectric test, a testing instrument is connected to the basket of the truck. When ready, the basket is placed against an energized high voltage power line and the testing equipment measures how much current is passing through the fiberglass basket and arm of the aerial trucks.

The line workers then performed live line maintenance as a part of the rubber gloving refresher training. This training allows crews to maintain lines without disconnecting power to the consumers.

Reviewing these procedures and testing of the trucks are for the safety of the crews and public.



At left, Journey Lineworker Cody Saathoff performs a pole top rescue training exercise with a 120 lb. dummy. Below, Saathoff simulates the CPR process on the mannequin.



Holiday Closing Reminder

Your Co-op's business office will be closed Monday, Sept. 6, to allow employees to spend holiday time with family and friends.

As always, call after-hours dispatch at 886-5848 or 1-800-463-8938 if you should experience electric service problems.

Make time for safety this harvest season

Harvest season often means putting in long hours, which can make it difficult to stay alert and on the lookout for potential hazards.

Be prepared for potential emergencies before the rush of harvest season begins. Be sure that you can see well in work areas. Consider adding extra lighting around grain bins and augers.

Take the time to look up and look out for electrical lines. Always be aware of where they are in relation to your equipment. Keep a minimum of 10 feet away from all electrical equipment, and lower extensions before moving equipment. If you see a power line that is sagging or low, contact the co-op. Also keep an eye out for guy wires. While these wires are not energized, they can bring down live lines.

In equipment with auto-guidance systems, less focus is needed on steering, which may lead some drivers to think they do not need to be as aware of navigation issues. Yet, even while using

a GPS, workers need to keep safety in mind and stay focused on their surroundings. Recognize when you need to take breaks so you can be active and engaged. Additional electrical safety tips include:

- Use a spotter when operating large machinery near lines.
 - Inspect the height of farm equipment to determine clearance.
 - Look up and use care when moving any equipment such as extending augers or raising the bed of grain trucks around power lines.
 - Always set extensions to the lowest setting when moving loads to prevent contact with overhead lines. Grain augers should always be positioned horizontally before being moved.
 - Never attempt to move a power line out of the way or raise it for clearance.
- If the machinery you are operating



does make contact with a power line, stay on the equipment. Immediately call 911, warn others to stay away, and wait for the utility crew to cut the power.

Only on the rare occasion that the machinery catches fire should you leave the vehicle after contact is made. If this is the case, jump off the equipment with your feet together and without touching the ground and machinery at the same time. Then, still keeping your feet together, hop to safety as you leave the area. Never touch anything that is in contact with a power line.

Unclaimed Capital Credit Refunds

Listed below are names of former members who have unclaimed capital credit refunds from Codington-Clark Electric Cooperative, Inc., 3520 Ninth Avenue SW, PO Box 880, Watertown, SD 57201. If anyone has information regarding these individuals, please contact us at (605) 886-5848 or 800-463-8938 or e-mail: info@ccelectric.coop.

Adams, Megan
Bailey, Mark T
Bennett, Barry & Tina
Brandriet, Rachel
Brown, Dan & Jill
Boss, Marvin & Gayle
Chancellor, Harriet W
Clark, Jimmy R
Clayton, Neil
Copeland, Michael T
Corson, Rebekah
Davis, Anthony & Rebecca
Eagle, Cindy
Gusso, Terry
Hancock, R W & Carolyn S

Hanson, Roger A
Hanson, Thomas & Wendy
Haugen, Paul D
Henley, Rick
Hildebradt, Lynn
Hinman, Ronald R
Holmstrom, Jeff & Ayrica
Houseman, Karen
Hutzenbiler, Shane & Meg
Jensen, Dennis D & Janet M
Johnson, Gene
Johnson, Stanley J
Kannegieter, Margaret
Kirkgasler, John F
Knutson, Raleigh & Ann
Koeck, John J & Kathy
Kubal, Robert J
Kurtenbach, Don & Marsha
Leddy, Cherie
Makens Oak Tree
Maskovich, Lisa
May, Scott
McElhany, Tyler & Linda
Meier, Eric & Lisa

Moon, Shannon
Olson, Donnie L
Olson, Stephen R
Pester, Matt
Pruitt, Kenneth
Riley, James M & Louann J
Reilly, Kent & Milenda A. Bray
Rohde, Tammy
Schaack, Mrs. Albert
Schmidt, Danny
Schomaker, Gary & Monica
Smith, Michael J & Sarah
Surma, Alan N
Tilly, Dennis C
Thompson, Kelly A & Darla C
Travers, Richard & Donna
Walter, Tim
Ward, Mike J & Jamie L
Wech, Michael S
West, Calvin & Leah
West, Gerry A & Pamela K
West, Harold D
Wheatland Township Hall
Wicks, Adam

LEARNING FROM ADVERSITY

The Dakota Lakes Research Farm produces information helpful to farmers and ranchers dealing with drought. *Photos by Billy Gibson*

SDSU agriculture researcher Dwayne Beck looks for better ways to gain higher yields through crop rotations and other techniques

Billy Gibson

billy.gibson@sdrea.coop

The drought conditions that gripped the state through the summer months caused difficulty for farmers and ranchers. The drought in 2012 also made it difficult to grow and harvest a productive crop.

But it's the drought that occurred in 1988 that Dwayne Beck remembers most. Beck, 70, is a researcher with SDSU who runs the Dakota Lakes research farm near Canning.

According to the National Integrated Drought Information System, as of June 23 more than 97 percent of South Dakota and all of Minnesota were categorized as "abnormally dry."

As someone who considers himself a seasoned investigator and problem solver, Beck looks at the current drought conditions as an

opportunity to learn.

So, what exactly did the farming and ranching community learn in 1988 when adverse weather conditions caused an estimated \$60 billion in agricultural damage across the U.S.?

"We learned not to do tillage," Beck responds without hesitation. "This drought is about the worse I've seen since 1988, and we learned then that in this part of the country if you till, you're screwed. No-till gives you a chance to have a decent crop and run a viable farming operation."

And the key to succeeding without tilling is proper crop rotation. That's what keeps Beck and other researchers busy.

On a recent afternoon, Melanie Caffe and her assistant Nick Paul were operating a small combine to gather their test crops laid out in strips measuring five feet wide by 20

feet long. Caffe, a native of France, is an ag professor at SDSU, while Paul is a local farmer and research technician.

The two-member team moved from section to section, cleaning out the collection bin as they went to keep the samples from being contaminated and corrupting the research data. The samples were



Dwayne Beck runs the Dakota Farms research facility near Canning.



Melanie Caffé and Nick Paul collect samples from a field at the Dakota Farms Research Station near Canning.

bagged and taken into the lab where Caffé and Paul planned to perform fertility experiments with the goal of developing varieties with higher yield, higher quality and stronger drought resistance.

Much of the research centers around maximizing yields through effective crop rotations. Beck has spent much of his career considering the ways farming was conducted 100 or more years ago and how it can be improved.

"The Natives grew crops before the Spaniards came and brought horses. They were all no-tillers because they didn't have cows and horses to pull the plows. They grew 13 different kinds of corn, beans, squash and sunflowers. They were very successful. The settlers never asked anyone how to grow crops here, they just got out their plow and started turning over the soil."

Beck has seen the wonders of crop rotation in his research. Some of his fields are rotated five ways.

"Good rotations can produce a lack of disturbance in places where you don't have a lot of water. Our research shows 99 percent of resistance issues could be solved with better crop rotations. There are fields where we haven't used insecticides for 18 years."

Beck said his methods aren't always adopted by industry but he continues to gather data and push out the information obtained through research.

"The nice about being a research guy is you always have more things to learn," he said. "The more you research, the more you don't know, but we're always looking for answers."

HOPS GROWERS NAVIGATING THEIR WAY THROUGH CHANGING INDUSTRY

Billy Gibson

billy.gibson@sdrea.coop

In many ways, Ryan Heine is like the average South Dakota farmer. He frets about the weather, plans for the future, worries about finances, watches the markets and is constantly trying to find a buyer for the crop he hopes will make.

But his crop is unlike most of the others that emerge from the South Dakota soil. Heine is owner of 6th Meridian Hop Farm near Yankton. His is one of six such farms left in the state growing hops for brewers to transform into craft beer.

Heine also sees his work as different compared to most farmers – he relies on his nose a lot.

"There's a lot of experimenting with different aromas. There are so many flavor profiles and varieties of hops that are used in creating craft beer," he said. "There's a vast palette of different aromas, and the market will dictate what consumers prefer."

Ryan and his wife Michelle launched their hop operation in 2014, leaving Omaha and returning to the small family farm near Yankton in pursuit of a more grounded lifestyle for their five children.

"We wanted to get out of the city and back to our farming roots," said Ryan, who works remotely as an electrical engineer for a company out of Minneapolis.

Ryan's interest in growing the essential elements of craft beer began when he was a student at Parks College in St. Louis, Mo. He went out with his friends and found most of what was offered at bars, pubs and restaurants was bland and uninspiring. He knew he liked the flavor of beer and he knew he liked the simplicity of the farming lifestyle.

"So I started doing some home brewing and found that it was a fun hobby to pursue. Now we have one of the biggest operations in the state," he said.

Heine's time on the farm is spent fussing over flavor and aroma profiles, acid levels, yeast growth, oil content, insect invasions, disease infections and more. He and Michelle do all the growing, harvesting, processing, drying, pulverizing, preserving, pressing and packaging.

He finds markets by visiting with brewers, forging relationships across the region and even keeping in touch with his college buddies.

"There are some college roommates I've kept in touch with who are brewers and we're always talking about how to improve our products," he said. "Hops growers are down to just a handful in the state, but for those who have survived, I think the outlook is good."



BULLISH ON BEES

Beekeeping industry struggles with drought and other obstacles along with overall agriculture sector

Billy Gibson

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Becoming a beekeeper wasn't something Chad Holbrook dreamed about back when he worked as a farm loan officer in Texas.

But he decided it might be an interesting hobby, so about 10 years ago he bought himself a hive just for the fun of it.

As things sometimes tend to go, one hive led to two, two hives led to four and before he knew it, Holbrook was giving his day job the boot. Goodbye business suit, hello beekeeping suit.

These days, Holbrook manages about 3,000 hives out of his main headquarters in Fairfax, MN, although he still has some hives back in Texas. A member of Renville-

Sibley Co-op Power, he ships his hives for pollination purposes all across the Midwest and to other regions as well to help growers gain higher crop yields.

"After I got my first bee hive I just really enjoyed doing it, and it snowballed and just kept increasing every year," Holbrook said. "I finally quit my day job to run the business in January of 2017, which is something I never thought I'd do."

That's a move that took some courage because Holbrook knew from his brief experience that while bees can be tough buggers, they also have plenty of obstacles threatening their place in nature and their very existence.

After all, some of the boxes, frames, pallets and extraction equipment he purchased to start

his own operation were acquired from beekeepers making a bee-line straight out of the business.

The list of real and potential apiary antagonists is long. Apiculturists are constantly trying to protect their colonies from various types of threats including several species of mites, insecticides, pesticides, extreme weather and destruction of their habitat.

One pitfall not often discussed in the public discourse is the attrition that takes place from merely moving colonies from one patch of farmland to the next, and in some cases, moving hives from one spot to another to protect them during the inclement non-pollinating months.

Holbrook figures the attrition rate can be up to 10 percent anytime hives are loaded onto a truck and hauled to different locations. It's a significant loss considering an estimated one-third of the world's food supply depends on the pollination work performed by



Honey bees pollinate roughly one-third of the world's agriculture crops.

honey bees. Since 2010, beekeepers in South Dakota, Minnesota and across the country have experienced historically high colony loss rates of nearly 30 percent a year impacting roughly 90 different agricultural crops ranging from almonds and apples on the West Coast to cotton and cranberries in the East.

"Keeping them alive is the hardest thing," Holbrook said. "There are substances farmers use to manage vegetation and help their crops, but it's causing a reduction in the forage area for bees. But everybody has to make a living and I don't fault the farmers...if I were them I'd probably be doing the same thing. But we can all look for ways to be more environmentally friendly because we're all making a living off nature."

Holbrook, who describes himself as a migratory commercial beekeeper, typically transports bees to California every January to pollinate that state's almond crop and then heads to his facility in Texas to extract honey. July is the slowest month of the year, then there's a short fall season before the bees head to an indoor storage facility in Idaho for protection against the cold.

Despite the drought conditions that have caused stress for farmers, ranchers and apiculturists across the region, Holbrook is bullish on the beekeeping industry. He noted that the city of Sioux Falls recently approved an ordinance that allows residents to maintain hives on their property. Would-be beekeepers must

apply for a permit, take an online class, inform their neighbors of their intentions and adhere to other prescribed guidelines.

Holbrook reports that through the spring and summer seasons - and despite the drought - honey prices have seen an upward shift. For instance, he said the price for honey in the region last year was about \$1.70 per pound but has climbed to more than \$2.25. The international market is expected to expand from \$9.2 billion to \$19 billion by 2028.

"We were fortunate that we've had some timely rains and the hot, dry weather hasn't caused problems for my business. It has been an average crop for me. But you don't ever really know for sure until the honey is extracted," he said.



According to owner Kiah Crowley, Sunrise Hives in Spearfish maintains about 400 bee colonies. *Photo by Sunrise Hives*

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SEPTEMBER 23-25
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