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MARCH 2024

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Serving Our Readers Since 1886

PAMELA SMITH



ON THE COVER
(From left) Mark, Dale
and Matt Wehmeyer
produce winter wheat
seed for farmers across
the country.

PHOTO: JASON JENKINS

***Rotating to
wheat can offer
versatility,
resiliency and
higher yields.***

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Cost Competitiveness Critical To Corn Exports

U.S. farmers are coming off a bumper corn crop, harvesting a new record yield of 177.3 bushels per acre for a bin-busting total of 15.342 billion bushels. That's a huge pile of corn to disperse as growers gear up for the 2024 season. The February "WASDE" report pegs carryout at 2.1 billion bushels. Commodity markets have certainly taken notice of the surplus. March \$4.29 corn futures sit at multiyear lows and at \$4.68 on December futures (posted mid-February).

In a bit of good news, as of Feb. 1, DTN Lead Analyst Todd Hultman reports there have been 1.374 billion bushels of U.S. corn export sales, up 30% from a year ago. To date, Mexico has been the largest buyer, accounting for 623 million bushels of sales and shipments. Japan is a distant second with 207 million bushels, but that's more than double a year ago, he points out. Yet, exports are below the four-year average.

Maintaining our cost competitiveness is critical to U.S. corn exports in light of plentiful supplies putting downward pressure on price. Krista Swanson, lead economist for the National Corn Growers Association, points to several factors that will impact U.S. corn exports in 2023–24 and likely beyond.

CLIMATE. Widespread drought in the Corn Belt in 2023 led to record-low water levels in the Mississippi River basin. Swanson explains that resulted in barge weight and traffic restrictions, and contributed to a higher corn price at port. Corn moved by barge on the Mississippi River was 7.7 million tons, 30% lower than 2022 and 54% lower than 2021.

Climate-induced drier weather also forced substantial scaleback of shipping through the Panama Canal, a key global maritime channel. DTN has reported extensively about the shipping disruptions. Scan the QR code (left) to learn more.

Traffic was reduced to 24 ships a day, about two-thirds of normal traffic. Typically, Swanson says 18% of U.S. corn exports travel through the Panama Canal, which offers the most efficient route from the Gulf ports to Asian nations. That's important because China and Japan have received about one-quarter of U.S. corn exported to date in the 2023–24 marketing year. Authorities are hoping



COURTESY OF OHIO SOYBEAN ASSOCIATION

the timely start of the normal rainy season will help alleviate the low water levels.

CONFLICT. Attacks on ships in the Red Sea affect passage through the Suez Canal, another major global shipping channel. The most efficient route from the U.S. Gulf to Kashima, Japan's, leading port for receiving corn imports is a 50-day route through the Suez Canal, Swanson explains. Unfortunately, safety concerns and added canal fees have dropped traffic through the Suez Canal by 36% (January 2024 vs. January 2023).

The next best alternative is a 54-day trip around the Cape of Good Hope, at the southern tip of Africa, and the 57-day trip around Cape Horn or through the Strait of Magellan, at the southern tip of South America. That's nearly double the time in transit compared to through the Panama Canal, she adds. U.S. corn could be shipped from Pacific Northwest ports in just 14 days, but that's only cost-effective for corn grown in the northwestern U.S.

The Panama Canal is also the shortest route for corn from Brazil to Japan. However, grain from Brazil's ports can reach Japan around the Cape of Good Hope in about 10 to 15 fewer days compared to shipments from the U.S. Gulf. Exports from Argentina's primary grain port have a similar advantage. Shorter transit time translates to better cost competitiveness for South American corn.

American agriculture competes in a global market. Politics, trade policy, the global economy and strength of the dollar have long been factors influencing U.S. commodity exports. But, lingering climate and conflict bring additional challenges that only add to the complexity of cost competitiveness for U.S. corn exports now and in the future.


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American Families and Workers Act Includes Tax Changes for Farmers

It's tax season! Every year I gear up, wondering if Congress or a state will retroactively change tax laws. From a tax perspective, 2023 was rather boring. However, as I write this article, things might soon change. The American Families and Workers Act is currently going through Congress. This will result in a host of positive changes for taxpayers—many retroactive to January 2023.

This is also a good time to point out that this is why I hate the March 1 filing. By the time the Act is passed, and software companies have integrated the changes, it might be well past the March 1 deadline. We also have the issue of state conformity. Some states don't automatically conform to the Internal Revenue Code. In this case, the state must pass a law to conform, which might happen after the April 15 deadline. So, unless there is a reason you must file early, it might be worthwhile waiting or extending.

Although it has not passed at the time I'm writing this, the Act has some provisions that have relevance to farmers. Here are a few key provisions that should be included in the final bill.

- The Act would extend 100% bonus depreciation through Dec. 31, 2025. Assets purchased in 2023 would be eligible for 100% bonus (currently, 2023 assets are subject to 80% bonus). Keep in mind, this might affect larger farming operations that purchased equipment assuming only 80% would be a deduction.

- The Act increases Section 179 expense from \$1.16 million to \$1.29 million. The phaseout also increases from \$2.89 million to \$3.22 million. This only applies to assets placed in service during 2024.

- Refundable child tax credits would increase from the current \$1,600 to \$1,800 (2023), \$1,900 (2024) and \$2,000 (2025). The credit would be adjusted

for inflation starting in 2024. Also, taxpayers can use prior-year earned income to calculate the credit in 2024 and 2025 if the earned income was higher in the current year.

- The threshold for filing 1099-MISC and 1099-NEC would increase from the current \$600 to \$1,000 starting in 2024.

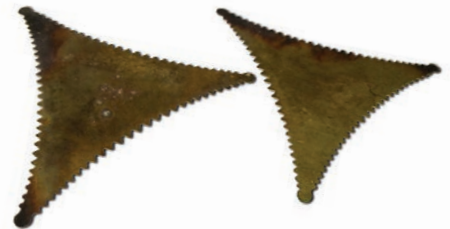
- The Act delays the requirement to amortize R&E/174 expenses until after Dec. 31, 2025. However, this would require amended tax returns if you amortized R&E/174 on the 2022 tax return.

- Business interest deduction would be changed to allow depreciation, amortization and depletion back into the calculation like it was prior to 2022. This will help farmers with high interest payments.

As you can see, there are several benefits to the Act. But, like everything, there is a cost. To pay for the Act, the ability to file a new Employee Retention Credit claim would be closed after Jan. 31, 2024. So, hopefully, you filed your ERC claim prior. ///

TOOLS FROM THE PAST

These handy star-shaped items helped simplify spring cleaning. What are they?



Answer:

These are "dust busters," placed in the corners of rooms and stairs to keep cobwebs and dirt from collecting in the hard-to-clean areas.



Rod Mauszycki

DTN Tax Columnist Rod Mauszycki, J.D., MBT, is a tax principal with CLA (CliftonLarsonAllen) in Minneapolis, Minnesota.

- Read Rod's "Ask the Taxman" column at **ABOUT.DTNPF.COM/TAX**

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U.S. Soybean Prices Off To a Bearish Start

It wasn't that long ago I was explaining at fall farm shows how U.S. soybean prices had a limited bullish opportunity ahead of us, at least until Brazil's next harvest in late January and February. Thanks to the heavy popularity of corn acres in 2023, U.S. soybean production was limited to 4.165 billion bushels (bb), the lowest in four years. In September, USDA estimated 220 million bushels (mb) of U.S. ending soybean stocks for 2023–24, the tightest supply situation in eight years.

We all knew Brazil was the next production threat, and USDA was estimating the world's largest soybean producer would come up with another record soybean crop in February, near 6.0 bb (163.0 million metric tons), if weather cooperated. Weather didn't cooperate early in the new season, however, as crops suffered stretches of hot and dry

tons (mmt) and 155.3 mmt, respectively, while other private estimates ranged lower, near 150.0 mmt, or 5.51 bb.

While social media was having a debate about just how bad crop conditions were, the price of March soybeans fell to a new six-month low on the first day of 2024 and slid lower from there, falling below \$12.00 by early February. Commodity Futures Trading Commission (CFTC) data showed the speculative positions of large traders went from being net long 86,677 contracts in mid-November to being net-short 160,817 contracts by Feb. 6, the largest net-short position on record.

The more concerning price drop, however, took place in Brazil. FOB (free on board) soybean prices for March at the port of Paranaguá fell from the U.S.

equivalent of \$12.95 a bushel near Christmas to \$11.20 in early February, a time when roughly 23% of Brazil's soybean crop was harvested. No one can confidently say yet how big Brazil's harvest will be, but the sharp price drop in January speaks volumes about local expectations.

Adding salt to soybeans' bearish wounds, Argentina's crops are off to a good start in 2023–24. USDA's 50.0 mmt (1.84 bb) soybean production estimate for Argentina is twice the size of last year's drought-afflicted crop. In mid-December, spot soybean

meal prices on China's Dalian exchange broke below its lowest prices in three years and fell another 10% in January, likely related to a government directive, urging hog producers to cut back inventory.

The year is still young, and there are plenty of unknowns ahead, including how U.S. production will go this year. For now, we can't ignore the fact the outlook for soybean prices has seen a dramatic bearish change the past four months. ///



JIM PATRICO

weather in central Brazil that helped push March U.S. soybean prices near \$14 by mid-November.

For soybean bulls, the mid-November peak was as high as prices would get, as a broad coverage of consistent rains returned to central Brazil after Thanksgiving and then again over the New Year weekend and into early January. USDA and Brazil's crop agency, Conab, lowered soybean production estimates for Brazil to 157.0 million metric



Todd Hultman
Lead Analyst

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Buyer Beware, or Beware of Buyer?

Katie Dehlinger
Senior Farm Business Editor
➤ Read Katie's business blog at
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The blazing-hot farmland market has leveled off over the past six months. Fewer farms are for sale. Fewer records are being set. A few auctions have resulted in no sales, but brokers say prices have shown no signs of major decline.

As invested as farmers are in price movements, they often care just as much about who's buying. Why wouldn't they be, especially when headlines echo around the internet about Bill Gates or the Mormon church adding to their already vast land holdings? When they see states banning Chinese ownership of farmland, it must be because the Chinese are on a shopping spree that must be stopped.

It's rarely that simple.

The difficulty with tracking land ownership trends is that every state has its own set of rules around how property titles are recorded. And, in many cases, LLCs are the buyer of record. Whoever is listed as the agent for that business may or may not actually be the person who holds the deed. These companies can be designed to hide the identity of a buyer, but they're also frequently used by farmers to keep land and operating interests separate. Reforming this system would have vast implications for how farms manage their assets.

There's very little clear data on the buyer side of the market,

which is why it lends itself so well to gossip. I speak frequently with the brokers involved in these transactions, and they tell me that the buyers are overwhelmingly farmers.

Farmers National Co., one of the nation's largest farmland brokerages, says 80% of the buyers last year were local farmer operators. This is the group that tends to win auctions and pay higher prices, because a land purchase can boost their business and increase revenues.

An investor may not be as enthused about a 2% annual return in the era of 5% certificate of deposits. They're hoping to buy low and sell high after giving land values time to appreciate.

Most investors aren't from Wall Street. The largest group of investors are local people—doctors, attorneys and other wealthy citizens—looking to diversify their portfolio and invest in their communities.

As for the Chinese? There's little evidence to support the shopping-spree theory, although the Government Accountability Office has questioned the accuracy of USDA's data. A legislative fix will likely be part of the next farm bill.

So, who bought the land down the road last fall? It was probably someone you know. ///



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Tips to a (Temporarily) Tidy Life

BY Tiffany Dowell Lashmet



Spring is just around the corner, which means green grass, baby animals and one of my favorite times of the year—*spring cleaning*. I wait for the first sunny day and open the windows, crank up the '90s country music and get to work trying to tidy up my life.

One of my favorite podcasters describes one decluttering approach as “big black trash bag energy.” Pitching everything into a trash bag to get it out of the house may be efficient, but just the thought of it makes me sweat. I prefer to take the time to really think about what items I should keep and those with which I can part.

Instead, I go room by room and think about every item by asking a few hard questions. When was the last time I used/wore this item? Do I have multiples? Is the item broken or missing parts or pieces?

That lone yellow flannel chore glove with a hole in the thumb—gone. Do I really need those well-worn barn boots that I’ve already replaced? Why am I keeping that lanyard and name tag from a farm meeting held three years ago?

If I decide an item can go, it heads to a “giveaway” pile or a “trash” pile. While I like to declutter, I hate being wasteful. So, if something has more life left, I like to donate. I have had luck making donations to homeless resource centers, women’s shelters, the Salvation Army and local families who may be in need. One key here is to get the “giveaway” pile out of the house as soon as possible so those items do not make their way back into the house.

Decluttering my space is freeing and good for the soul. I embrace the concept of “progress not perfection,” but even small progress helps my mood and outlook on a new season. Now, comes the real chore—tackling the barn. ///



Tiffany Dowell Lashmet juggles cleaning with family, farming, fairs, writing and a career in ag law from the Texas Panhandle. Follow her blog at alwysafarmkid.com, on Instagram [alwysafarmkid](https://www.instagram.com/alwysafarmkid) and Twitter [@TiffDowell](https://twitter.com/TiffDowell)

Sweet Memories of Spring

BY Katie Pratt

The lure of spring comes on a crisp morning breeze.

Snow fades into mud. Where the sun rays reach, shades of green crawl across the yard. On those first spring days during my youth, this country kid and her friends would emerge from winter’s grasp to seek adventure.

Typically, this began by outfitting everyone in mud boots before tromping off into the squishy pastures of the hickory grove, a sparse stand of hickory trees that sprang from the banks of the creek. The creek, a narrow cut of water that meandered through our pasture, continued along the neighbor’s field into places unknown. Kept clear of underbrush, we could wander the grove and creek banks shoulder to shoulder.

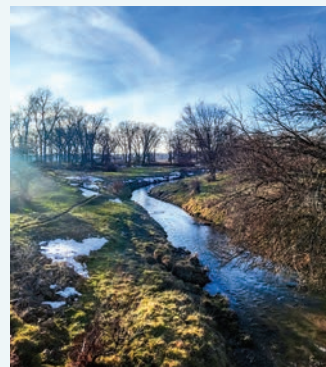
Then one day we paused at the pasture’s edge and watched the creek gurgle into a tangle of shrubbery and tree branches past the property line. Impulsively, we climbed the fence.

Single file, we trudged through the brush. No cattle roamed here, so nature went untouched. We tripped on exposed tree roots, sliding down the bank into icy water. When the trail became impassable on one bank, we formed a human chain to cross the creek on fallen tree trunks and rocks. Thorns tore our coats and cut our hands.

We felt like true explorers that day. Uncomfortable. Slightly scared to have wandered so far yet daring enough that no one suggested turning back.

Eventually, the creek widened, somersaulting over large stones before spilling over a rusted metal barrier into the Green River. We had found the creek’s mouth just as the sun sunk into the horizon, splashing pale pinks and yellows across the water and up the banks.

That first waft of spring will be here soon, and I will breathe deep and remember those moments, those friends and the youthful thrill when we roamed carefree and tested our boundaries. ///



Katie Pratt, a north-central Illinois farmer, still finds discovery and pleasure in roaming the pastures of her youth, especially in springtime. Find her blog at theillinoisfarmgirl.com

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El Niño Expected To Diminish Quickly This Spring

El Niño peaked in January in the Pacific Ocean, and outside of a strong burst from the polar vortex in mid-January, it has had a hold on the weather pattern across North America all winter. As is typical with El Niño, it is forecast to end during the first half of 2024. There could even be the reverse, La Niña, sometime during the summer. But, the speed at which the transition occurs will play an important part in how the weather situation will turn out for spring planting and early growing conditions for the 2024 crop season. The faster it goes toward neutral or even La Niña, the more volatile the weather may become. If it is slower, the control from El Niño will continue deeper through the spring. That would tend to be warmer conditions across the north and a persistent storm track across the south. Unfortunately, climate models from around the world show the decay of El Niño coming at vastly different rates, leading to a lot of uncertainty about the spring weather patterns.

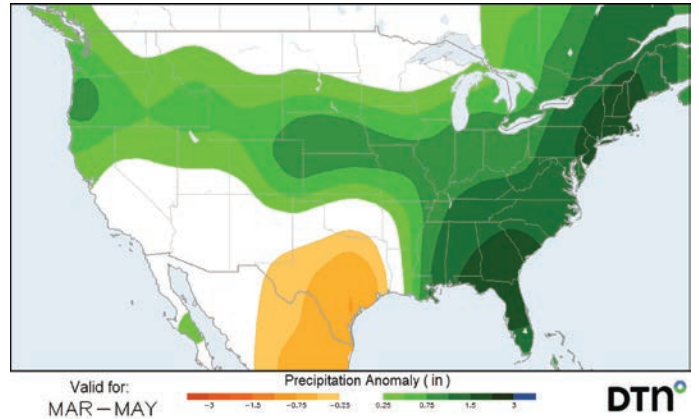
Pacific Northwest (Idaho, Oregon and Washington):

Relatively good weather over the winter should leave very little drought in the region for the start of the 2024 growing season. Though the uncertainty with the spring season is high, good soil moisture to start out the spring and a lack of any signal for dryness in the forecast leads to an overall good outlook for winter and spring grains. Those with specialty crops will see a boost from the drought-ridden past couple of years and hopes for bigger yields.

Southwest: Thanks to Hurricane Hilary in August and a good El Niño storm track through the region over the winter, much of the region has seen very little drought or dry soils. Mountain snow is piling up, and the threat for additional issues with irrigation are low. If La Niña develops this summer, it would likely enhance the monsoon showers, which would help to feed local rivers. If it is delayed until fall, there is a risk of lower showers from the monsoon and a return to

drought conditions, which would increase the heat in the region, as well.

Northern Plains: Little of the region is currently in actual drought at the end of January, though it has not been all that active so far this winter. As long as El Niño remains in control, that will largely be the case.



However, if El Niño declines quickly as forecast, a variable weather pattern will be more likely, which could cause some delays for planting, depending on the timing of storm systems, but also potentially increasing soil moisture for early plant growth. There are no guarantees here, however.

Central and Southern Plains: Drought has been a nuisance or significant detriment for the last several years, and there continue to be pockets of drought where long-term precipitation deficits continue to be large. But, on the whole, the region has seen some good precipitation this winter, and winter wheat is in better shape to start 2024 than the previous couple of years. The southern storm track should continue to build soil moisture through the spring, depending on when El Niño starts losing its influence, and may continue through late spring. While that may make it more difficult to get the 2024 corn and soybean crop in the ground, it would make for good soil moisture for all.

Coastal Texas and Louisiana: Dryness and drought that built in over the summer and fall have been hard to get rid of. Some



John Baranick
DTN Meteorologist

► Read John's blog at [ABOUT.DTNPF.COM/WEATHER](https://www.dtnpf.com/Weather)

► You may email John at john.baranick@dtn.com

significant precipitation deficits remain in Louisiana. However, El Niño's southern storm track has brought vast improvement to the drought situation over the winter, and few effects of the drought remain. Even if the southern storm track quickly lifts out of the region this spring, the region is set up much better than the end of last season.

Midwest: Long-term precipitation deficits continue in the western half of the region. Even though some heavy precipitation events have occurred this winter, it will take much more precipitation to get out of drought in Iowa, especially. If the drought is still around, spring precipitation will be very important in that growth. Eastern areas of the region are forecast to see good rainfall and continued building of soil moisture, which has been a surprise under El Niño. Planting may be delayed in some areas due to the moisture, but early growth is expected to be good.

Delta/Lower Mississippi Valley: Drought has all but been eliminated in the region this winter as the southern storm track has allowed for heavy precipitation events to reduce drought to almost nothing outside of a few

pockets. El Niño favors the continued inundation of showers in the region which may slow planting, but give an early good footing for growing crops.

Mid-Atlantic and Northeast: Heavy precipitation through the winter has caused little concern for drought going into the 2024 season. Any areas of drought in the south have been eliminated over the winter. With El Niño potentially bringing more intense coastal storms into the spring, soil moisture is expected to be high to start the campaign. It may cause problems with planting, but early growth should be good.

Southeast: Drought has been in and out of the region since last summer, but El Niño has been providing improved rainfall in some larger storms during the winter. The storm track is favored to go through the region through the spring as long as it is still asserting its influence. That should provide much of the region with good soil moisture to start the year, even if long-term rainfall deficits remain in some areas. A quicker end to El Niño may leave the region drier prior to summer, however. ///

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Winning Wheat

National contest yields a new crop of growers earning “Bin Buster” honors.

to injury. Hot, dry weather early in the season also was a factor for some spring wheat growers, especially in the Northern Plains.

Despite weather woes, wheat proved its resiliency as the results of National Wheat Yield Contest can attest.

Four new growers earned the title of “Bin Buster” in the contest, with Chris Gross, of Reardan, Washington, topping all entries with irrigated hard red winter wheat that yielded 211.98 bushels per acre (bpa). It’s the second-highest yield recorded in the contest’s eight-year history.

Sponsored by the National Wheat Foundation (NWF), the contest is designed to encourage wheat growers to strive for high yield, quality and profit while trying new and innovative management strategies. DTN/*Progressive Farmer* is the official media partner.

Despite the ongoing environmental challenges, 417 entries were received this year, up nearly 25% from 2022 and falling just one entry short of the contest’s all-time high. For the 24 national winners from 12 states, the yield average increased to 144 bpa.

MEET THE BIN BUSTERS

IRRIGATED WINTER WHEAT CHRIS GROSS

Reardan, Washington

Variety: WestBred Keldin

Yield: 211.98 bpa



Chris Gross

A yield exceeding 210 bpa might cause some wheat growers to check their monitor’s accuracy. But, for Chris Gross, the tally fell a few kernels short of what he hoped for this season. Still, the result was enough to win top honors in the irrigated winter wheat category.

Gross farms as a member of the Spokane Hutterian Brethren, a community steeped in generations of tradition while also utilizing the latest in technology.

He says the winning wheat yield was raised in a field of mixed soil type. “The area where the highest yield was recorded has a higher water table, and it was sitting in a lower area. The rest of the circle is sandier,” he notes.

The variety, WestBred Keldin, was a medium- to late-maturity hard red winter wheat that offers excellent

powdery mildew tolerance and handles a diverse set of growing conditions. The variety had a target seeding rate of 750,000 seeds per acre in 7.5-inch rows.

With a nearly Mediterranean-style climate, the eastern portion of Washington is almost ideal for growing wheat. Of the 15 to 18 inches of annual precipitation, only a few inches fall in season. Lack of humidity helps reduce disease pressure.

Sensors, both in the soil and on the irrigator, determine additional water needs. Variable-rate irrigation is used to apply water and nutrients more precisely. The winning entry had 20 inches of water applied throughout the growing season.

Starter fertilizer is applied at planting, but the bulk of the crop’s fertility requirements is supplied through irrigation water. Microbials go out as a foliar feed with a sprayer, as needed. Tissue testing is done at the flag leaf stage and again later in the season.

Protein is important with hard red winter wheat; making it without a yield sacrifice requires constant testing to make sure nitrogen is available through

LARRY REICHENBERGER

critical growth periods. Total nutrients applied per acre to the 2023 winning entry was 374 pounds nitrogen, 20 pounds phosphorus, 40 pounds potash and 68 pounds sulfur.

Overall, the wheat contest is a motivational tool to keep gaining efficiencies and learning from others, something Gross finds invigorating.

“Our tiller counts weren’t quite as high as we liked (in 2023),” he says. “What made the area we pulled this sample from better? We are really examining our data and hoping to figure that out so we can apply it to another crop.”

DRYLAND WINTER WHEAT DICK JUDAH

Hillsboro, Oregon

Variety: Limagrain LCS Shine

Yield: 173.77 bpa

Dick Judah has watched wheat’s fortunes roll around more than once during his farming career. This year, the crop literally shined for the Oregon farmer, as the variety he planted, LCS Shine, produced the highest yield entered in the dryland winter wheat category.

Judah farms and works for Berger International, a sixth-generation family seed business, located in the northwestern part of Willamette Valley.

The winning entry followed turf-type tall fescue in the rotation. In past years, the farm drilled wheat in 6-inch rows, but this entry was sown with a spreader and then lightly disked into the soil. “We’ve had pretty good luck seeding that way the last few years, and it’s a lot faster,” Judah notes. Planting takes place from early to late October at seeding rates that average between 100 to 130 pounds per acre, he adds.

The soft white winter wheat variety was treated with CruiserMaxx Vibrance Cereal seed treatment to protect young seedlings and roots from a range of seedborne and soilborne diseases and early-season insects. Other inputs included a total of 135 pounds nitrogen, 30 pounds potassium, 10 pounds phosphorus and 15 pounds sulfur.

“Management is important. We have a good team making decisions,” he says. “And rotation helps. We see good wheat yields as they come out of grass and/or clovers.”

Planting a grass into a grass can be problematic, but Judah says the key to avoiding problems is getting a good kill on the fescue. Glyphosate is still the go-to for that job. A different site-of-action herbicide application is



Dick Judah (right)

used immediately after planting, followed by a phenoxy (such as 2,4-D) in the spring.

Farmers in other parts of the country might drool at the thought of the 45 to 48 inches of annual rainfall experienced in this area. The winning field started off dry in the fall. “Once it started raining, the wheat this year really took off,” Judah says, noting that leaf diseases required two fungicide applications, and when head blight threatened, a third application was applied. “We had plenty of moisture during the growing season.”

Winning the contest takes Judah back to a time when wheat was more popular in this region. “Lots of things have changed over the years, but we keep working at it and trying to improve,” he says. “Mother Nature has a lot to say about how it turns out.”

IRRIGATED SPRING WHEAT DALLIN WILCOX

Rexburg, Idaho

Variety: WestBred WB7589

Yield: 170.14 bpa

After years of placing nationally but falling short of top honors, Dallin Wilcox, a farmer from Rexburg, Idaho, earned the title of “Bin Buster” in the irrigated spring wheat category this year.

Winter didn’t want to release its grip on Idaho in 2023, Wilcox says, delaying the start of the growing season. “It meant we had good soil moisture to start, but we were at least three weeks later than usual getting in the field,” he adds.

Wilcox planted WestBred WB7589, a hard white spring wheat variety adapted for irrigated environments with excellent yield potential, protein content and stripe rust tolerance. The medium-maturing variety also has excellent standability, test weight and milling and baking quality.

The field containing Wilcox’s contest plot was planted using a Great Plains 3S-4000 drill. The field was planted at a rate of about 1.43 million seeds per acre on 6-inch row spacing. The seed was coated with CruiserMaxx Vibrance, which combines three fungicides and one insecticide.

Because Wilcox also raises potatoes with a high nutrient demand, he works hard to maintain soil fertility throughout his rotation. The wheat crop followed potatoes, allowing it to mine any leftover fertility in the soil profile. Nitrogen, phosphorus, potassium and sulfur were all applied preplant. Additional nitrogen was applied as starter fertilizer at planting and during irrigation. >



Dallin Wilcox (right)

Here in this portion of the Snake River Plain, irrigation is essential, as total annual precipitation averages less than 13 inches. Throughout the growing season, Wilcox applied 10 inches of water to his wheat crop.

While the growing season may have been delayed, conditions throughout the summer remained nearly ideal for wheat, Wilcox says. Pest and disease issues never materialized, allowing him to limit his herbicide and fungicide application to just one pass.

Probably the greatest hurdle this year was harvest, he notes. Rains came just as the crop reached maturity, causing some lodging.

Even with a yield exceeding 170 bpa, Wilcox notes the crop maintained good quality, with a protein level just over 13%. While he's been pleased with WestBred WB7589, he says he'll be reviewing the results of on-farm test plots to see if a new variety might have outperformed it.

"We're always looking to improve," Wilcox says. "If there's some seed available with a variety that I think will do better, whether it's hard red or hard white, I'll plant a field and give it a try."

DRYLAND SPRING WHEAT BRAD DISRUD

Rolla, North Dakota

Variety: WestBred WB9590

Yield: 129.98 bpa

As the old saying goes, "You have to be in it to win it." In 2022, Brad Disrud simply wasn't in it.

"I should have entered the contest last year," the farmer admits. "We had some really good wheat that I think would've been in the running. So, I kind of learned from that. We entered this year [2023] and did a little bit extra on this one plot. It made all the difference."



Despite being a first-time participant in the yield contest, Disrud used his two decades of farming experience to earn the "Bin Buster" title in the dryland spring wheat category in 2023. His winning yield not only topped this year's entries, it also was nearly 5 bpa more than last year's winner in the same category.

Disrud planted WestBred WB9590, a hard red spring wheat variety the seed company describes as having broad adaptability with excellent yield potential, protein content and standability. The North Dakota farmer planted the field at a rate of 1.5 million seeds per acre on 7.5-inch row spacing using a no-till air drill. The seed was coated with Raxil Pro Shield, an all-in-one insecticide and fungicide seed treatment.

"At planting, we've also been doing quite a bit with starter fertilizers, mixing sulfur with 11-52-0 MAP (monoammonium phosphate)," Disrud says. "I think that's where we're catching a lot of yield bump by getting that crop out of the ground with ample nutrition right from the start."

Disrud adds that he's been increasing his nitrogen application rates, pushing to see what the WestBred variety can achieve.

"It has good standability in the field, so it can handle a lot more nitrogen," he says. "It doesn't lodge. If you can put that kind of nitrogen to it and keep it standing, it'll fill out nice and get big heads and heavy kernels. It has that yield potential."

Postemergence weed control was achieved with a pass containing Huskie Complete and MCP Amine. Fungicides, including Propi-Star EC and Prosaro PRO 400 SC, were applied at various intervals during the growing season.

"We made three fungicide passes on the plot this year," Disrud says. "We'll make an application at the flag leaf stage, which a lot of people don't do, but I've noticed that it's made a lot of bushels doing that. We just try to keep everything as healthy as you can, and hopefully, Mother Nature comes through for you." >

FOR MORE INFORMATION
For a complete list of contest rules, visit
yieldcontest.wheatfoundation.org



CONGRATULATIONS TO THIS YEAR'S NATIONAL WINNERS.

SPRING WHEAT — DRYLAND

BRAD DISRUD

Bin Buster — High Yield
129.98 Bu/A | WB9590

JOHN WESOLOWSKI

1st Place — High Yield
126.09 Bu/A | WB9590

LANCE OLSON

2nd Place — Percentage Increase
122.09 Bu/A | WB9606

TREVOR STOUT

3rd Place — High Yield
119.91 Bu/A | WB9623

AUSTIN KAUTZMAN

1st Place — Percentage Increase
119.94 Bu/A | WB9606

DEVAN LAUFER

3rd Place — Percentage Increase
109.84 Bu/A | WB9719

SPRING WHEAT — IRRIGATED

DALLIN WILCOX

Bin Buster — High Yield
170.14 Bu/A | WB7589

JESS BLATCHFORD

1st Place — High Yield
164.50 Bu/A | WB6341

JEFF BIEBER

2nd Place — High Yield
109.33 Bu/A | WB9719

WINTER WHEAT — DRYLAND

DAVID EBERS

5th Place — Percentage Increase
114.88 Bu/A | WB4699

WINTER WHEAT — IRRIGATED

CHRIS GROSS

Bin Buster — High Yield
211.98 Bu/A | Keldin

MEET THE 2023 NATIONAL WINNERS

WINTER WHEAT DRYLAND

First Place: Derek Berger

Hillsboro, Oregon
Variety: Limagrain LCS Shine
Yield: 171.58 bpa



Second Place: Randy Eschenburg

Almont, Michigan
Variety: Michigan State Whitetail
Yield: 169.75 bpa

Third Place: Kent Edwards

Castalia, Ohio
Variety: Pioneer 25R29
Yield: 169.4 bpa



Fourth Place: Guy Gochenour

Woodstock, Virginia
Variety: Mid-Atlantic Seeds 139
Yield: 163.31 bpa



Fifth Place: William Willard

Frederick, Maryland
Variety: Pioneer 25R64
Yield: 157.67 bpa

WINTER WHEAT DRYLAND ABOVE COUNTY AVERAGE

First Place: Marc Arnusch

Keenesburg, Colorado
Variety: Limagrain Helix AX
Yield: 130.69 bpa, 330.5% above Weld County, Colorado, average

Second Place: Brett Arnusch

Keenesburg, Colorado
Variety: Limagrain Helix AX
Yield: 130.64 bpa, 330.3% above Weld County, Colorado, average

Third Place: Travis Freeburg

Pine Bluffs, Wyoming
Variety: PlainsGold Brawl CL Plus
Yield: 118.24 bpa, 295% above Kimball County, Nebraska, average



Fourth Place: Casey Cantwell

Keenesburg, Colorado
Variety: Limagrain Helix AX
Yield: 99.75 bpa, 229% over Weld County, Colorado, average

Fifth Place: David Ebers

Wellston, Oklahoma
Variety: WestBred WB4699
Yield: 114.88 bpa, 204% above Seminole County, Oklahoma, average

WINTER WHEAT IRRIGATED

First Place: Gary Reynolds

Castleford, Idaho
Variety: Syngenta SY Ovation
Yield: 201.94 bpa

Second Place: Nick Suwyn

Wayland, Michigan
Variety: DF Seeds DF-131
Yield: 171.71 bpa



SPRING WHEAT DRYLAND

First Place: John Wesolowski

Warren, Minnesota
Variety: WestBred WB9590
Yield: 126.09 bpa



Second Place: Lance Olson

Mott, North Dakota
Variety: WestBred WB9606
Yield: 122.09 bpa

Third Place: Trevor Stout

Genesee, Idaho
Variety: WestBred WB9623
Yield: 119.91 bpa

SPRING WHEAT DRYLAND ABOVE COUNTY AVERAGE

First Place: Austin Kautzman

Mott, North Dakota
Variety: WestBred WB9606
Yield: 119.94 bpa, 273% above Grant County, North Dakota, average

Second Place: Jason Signalness

Watford City, North Dakota
Variety: Croplan CP3099A
Yield: 109.13 bpa, 250% above McKenzie County, North Dakota, average

Third Place: Devan Laufer

Mott, North Dakota
Variety: WestBred WB9719
Yield: 109.84 bpa, 241% above Adams County, North Dakota, average



SPRING WHEAT IRRIGATED

First Place: Jess Blatchford

Haines, Oregon
Variety: WestBred WB6341
Yield: 164.5 bpa

Second Place: Jeff Bieber


Fairview, Montana
Variety: WestBred WB9719
Yield: 109.33 bpa



Wheat Quantity AND Quality



Winners in the 2023 National Wheat Yield Contest also had their grain evaluated for quality. Samples were milled and analyzed for grain-quality characteristics such as test weight and protein, as well as flour characteristics such as falling number, gluten percentage, consistency and stability. As a final step, the flour samples were used to produce baked goods.

“It’s important to have those functional qualities that a miller and baker are demanding, because that’s what our customers, both international and domestic, are expecting,” says Anne Osborne, National Wheat Foundation’s project manager for the yield contest. “The quality component of the contest gives us an opportunity to educate growers on why it is so important that they select varieties with the characteristics that end users desire.”  = Quality Award Winner

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Take a Class In Wheat

Where it grows and how it's used matters.

The earth wakes early each spring at Wehmeyer Farms, near Mascoutah, Illinois. Soft red winter wheat unfurls after its winter's nap in a sea of green and long before most crop seeds meet the furrow.

Illinois once led the nation in wheat production. The chances of it regaining that mid-1880s dominance are unlikely. But, some farmers that seeded wheat when prices spiked in 2022 gained a renewed appreciation for growing it, observes Matt Wehmeyer, president of AgriMAXX Wheat Co.

“With prices retracting this past fall, there were geographies where (planted) wheat acres were softer,” he says. “Still, some areas had a fantastic yielding crop in 2023, which gave growers the motivation and incentive to do a repeat. Two years ago, it was a national push to plant, whereas this winter, it was more regional.”

> WHERE WHEAT STILL REIGNS

States such as Kansas, Montana, North Dakota, Oklahoma and Texas will probably always lead in wheat acreage, says Aaron Harries, vice president of research and operations of Kansas Wheat. “U.S.



More intentional management of wheat is driving crop performance, Matt Wehmeyer says.

JASON JENKINS

Wheat Associates is supported by 17 state wheat commissions, and there are many other states with pockets of important production,” Harries says. Wheat is grown in 42 of the U.S. states and in nearly every region on six continents around the world, according to National Association of Wheat Growers (NAWG) statistics.

What makes wheat unique is that it has six distinct classes (see illustration, page 23) that result in specific end uses. Millers and bakers are the alchemists of agriculture, creating consistent and dependable foodstuffs from protein, hardness levels, color and other properties that differ by class and can be influenced by management and growing season.

It's been 150 years since Mennonite immigrants introduced a winter wheat variety called Turkey Red to Kansas. “Prior to that, Kansas farmers had planted spring wheat, and it wasn't faring very well,” Harries explains. “Turkey Red was a turning point that led to an entire wheat infrastructure—from railroads to mills.”

Today, wheat is part of an “ensemble” of crops that include corn, soybean, sorghum and cotton. “But,



wheat is still a good fit because it provides benefits to the other crops in the rotation,” he says. “It has moisture-conserving properties because of the straw. It’s a good cover crop to prevent wind erosion. It’s well-documented that corn yields better after wheat,” Harries says.

> YIELDS GAINS

While the National Wheat Foundation’s (NWF) yield contest is a good indication of yield potential, AgriMAXX president Wehmeyer likes to point to the 2023 winter wheat season to prove the uptick is mainstream.

According to USDA’s “Small Grains Annual Summary,” released Sept. 29, 2023, record winter wheat high yields were estimated in Delaware, Illinois, Indiana, Kentucky, Maryland, Missouri, Montana, New Jersey, New York, North Carolina, Ohio, Tennessee, Texas and Virginia.

The new state average wheat yield estimate for Illinois is 87 bushels per acre (bpa), up from 79 bpa last year. Several counties are expected to exceed the 100 bpa average.

The Wehmeyer family has a vested interest in cheerleading the crop. Dale and Lisa Wehmeyer founded a family-owned seed company in 1995 after Dale had managed the University of Missouri Foundation Seed Program. They extended the investment in 2009 by launching AgriMAXX Wheat, a high-performance wheat seed company. Their children, Matt, Mark and Kristen Wehmeyer are all involved in helping run the seed business and/or farming operations.

This year, they welcomed more growers into the company’s 100-bpa, 125-bpa and 150-bpa yield clubs. Matt’s 125.72 bpa entry in the National Wheat Yield Contest gained him a second-place state win.

“Yield is still king,” he says. “But, there’s been so much innovation put into wheat genetics over the last five years, and it is starting to bring another level of yield potential, which is exciting.”



JASON JENKINS

> GETTING INTENTIONAL

Farmers are also managing wheat more like corn, he says. “I like to say we aren’t seeing intensive management as much as intentional management.

“Growers are more intentional with regard to populations, planting depths, timing, nitrogen, disease management—all the things that make a crop perform,” he adds. “That’s really showing up in yields.”

Despite some tough weather years on the High Plains, Harries says crops such as wheat and sorghum have an edge over more water-intensive crops. That’s a consideration as water rights intensify. Add the conservation aspects of growing wheat into the equation and the fact that wheat is still a staple in the pantry.

Harries sees even more diversification in the crop as specialty wheats emerge and gain traction. Hard winter wheat that has protein levels comparable to spring wheat and varieties with lower glycemic indexes to make wheat an even better choice for people with diabetes are two examples, he notes.

“Wheat may be viewed as a commodity, but it is really a very diverse food ingredient. We are unlocking a lot of potential in each of the classes of wheat that will be exciting going forward,” Harries says. >

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Classes of Wheat



Hard Red Winter

Growing Region: Great Plains (Colorado, Kansas, Oklahoma, Nebraska and Texas), Pacific Northwest, California and scattered in other states (most widely grown class)



Use: bread and all-purpose flour. Versatile, with excellent milling and baking characteristics for breads baked in a pan, flatbreads,

hard rolls, some types of Asian (ramen-style) noodles, general-purpose flour and cereal

Qualities: medium to high protein of 10 to 13%, medium hard endosperm, red bran, medium gluten content and mellow gluten

Production: 18.4 MMT (million metric tons)*



Hard Red Spring

Growing Region: Northern states such as Idaho, Minnesota, Montana, North Dakota, South Dakota and Washington



Use: "designer" wheat foods like hearth breads, rolls, croissants, bagels, pizza dough and as an improver for

flour blends

Qualities: high protein of 12 to 15%, hard endosperm, red bran, strong gluten and high water absorption

Production: 12.5 MMT



Soft Red Winter

Growing Region: Eastern third of the U.S., mostly east of the Mississippi River



Use: cakes, cookies, crackers and other confectionery products, adding value to the miller and baker as a blending wheat

Qualities: low protein of 8.5 to 10.5%, soft endosperm, red bran and weak gluten

Production: 9.0 MMT



Soft White

Growing Region: Pacific Northwest (Idaho, Oregon, Washington, Utah) and some in Michigan



Use: provides whiter and brighter product for cakes, pastries, Asian-style noodles and Middle Eastern flatbreads

Qualities: low protein of 8.5 to 10.5%, low moisture and weak gluten

Production: 6.3 MMT



Hard White

Growing Region: Central Plains (Colorado, Kansas, Nebraska), California, Idaho and Montana



Use: Asian noodles, tortillas, flatbreads and high extraction applications such as white, whole wheat pan breads

Qualities: medium to high protein content of 10 to 14%, hard endosperm, white bran

Production: 0.7 MMT



Durum

Growing Region: Montana, North Dakota and some acreage in Arizona, California and South Dakota



Use: pasta, couscous and some Mediterranean breads (the hardest of all wheats with rich amber color)

Qualities: high protein content of 12 to 15%, yellow endosperm and white bran

Production: 1.6 MMT

Sources: U.S. Wheat Associates (uswheat.org), Wheat Foods Council (wheatfoods.org), Kansas Wheat (eatwheat.org), National Association of Wheat Growers (wheatworld.org), National Wheat Foundation (wheatfoundation.org)

*Acreage estimates reflect USDA five-year average.

PHOTOS COURTESY OF EATWHEAT.ORG

Thirsty For Drought Solutions



▮ *Last fall, a group of U.S. wheat farmers traveled to Argentina and saw Bioceres' HB4 transgenic wheat growing in the field.*
COURTESY OF BIO CERES CROP SOLUTIONS

gave their regulatory blessing for cultivation in 2023. Bioceres is actively working to expand the list to countries on other continents.

“HB4 wheat currently is under evaluation for cultivation approval in the United States, Uruguay and Bolivia,” says Martin Mariani Ventura, global seeds and traits manager at Bioceres. “We’re also preparing to pursue cultivation approval in Australia in the future.”

> TOUGHENED TOLERANCE

As a GM crop, HB4 wheat contains HaHB4, a transcription factor that modulates the expression of several hundred genes providing drought tolerance. In the face of drought, HB4 generates more antioxidant and osmoprotectant molecules, delaying cellular deterioration and allowing the

plant to maintain photosynthesis until rain returns. HB4 wheat also is tolerant to glufosinate herbicide.

Mariani Ventura says that HB4 is not a silver bullet. Rather, it’s more like an insurance policy against the effects of drought, and the value of that policy becomes more pronounced in lower-yielding environments.

Data from three seasons of field trials in 34 different locations in Argentina show that when environmental conditions limited yield to less than 30 bushels per acre (bpa), varieties with HB4 technology yielded 38% more on average than the same wheat variety without the technology. The increase was even more pronounced—51% more on average—when looking at data from 2022–23, a season during which Argentina suffered through a major drought.

“Even in a nonlimitation environment, where yields exceed 60 bpa, the varieties with HB4 yielded 23% more on average than the same varieties without it,” Mariani Ventura explains. “From the grower perspective, this is important because it means the technology works when there is a drought situation, but it also doesn’t cause a yield drag when there is no drought.”

> GM WHEAT REDUX

While HB4 wheat is the first to receive government approval for commercial cultivation, it’s far from being the first GM wheat developed. Other efforts >

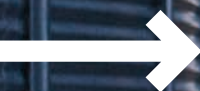
Genetically modified wheat could provide relief, but will it find a global market?

Central Oklahoma farmer Michael Peters is no stranger to the effects of drought on his hard red winter wheat crop.

“With wheat, it’s not so much about how much rain you get. It’s the timing of the rains,” he says. “You could be wet all winter, but if it turns bone dry in April and May when the wheat is going into its reproductive stages, that’s when it hurts you. It would be nice to have something to get through those dry spells.”

Last fall, Peters saw firsthand a potential future solution—a field of drought-tolerant genetically modified (GM) wheat growing in Argentina. Yet, several regulatory and cultural hurdles must be cleared before GM wheat becomes reality for U.S. wheat growers.

Bioceres Crop Solutions, a company based in Rosario, Argentina, has developed HB4 wheat, a transgenic variety that contains a gene isolated from sunflower. In 2020, the Argentine government granted approval for commercial cultivation of HB4 wheat, making it the world’s first GM wheat to earn that distinction. Two other South American nations—Brazil and Paraguay—



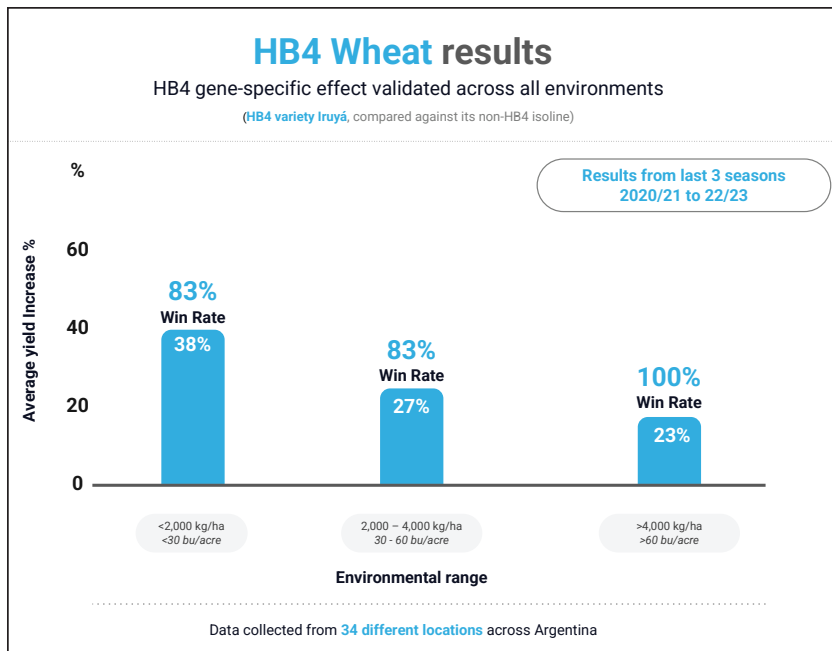
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“It was all headed out with nice big heads when we were there,” says Peters of Okarche, Oklahoma, who currently serves as USW chair. “It was maybe a little tall for our liking, but they were beautiful plants. Some of the best wheat I’ve seen.”

U.S. TIMELINE FOR HB4

In June 2022, the U.S. Food and Drug Administration announced that it found no safety issues with the HB4 wheat, allowing for food and feed use. Other countries have made the same determination, including Australia, Colombia, Indonesia, New Zealand, Nigeria, South Africa and Thailand. However, before Bioceres is allowed to cultivate HB4 wheat in the United States, the modified plants must be reviewed by the USDA Animal and Plant Health Inspection Service (USDA-APHIS).

In January, a spokesperson from USDA-APHIS told *Progressive Farmer* the agency was unable to share information related to a specific product until it concluded a review or published a draft plant pest risk assessment for public review and comment.

Should such approval occur, USW’s Laudeman says U.S. wheat producers will support commercialization of transgenic wheat traits after thorough review and the development of a plan that facilitates commercialization.

“Whether it’s a Bioceres trait or any GM trait that wants to come to market, we and the National Association of Wheat Growers have developed a set of guiding principles,” he says. “Any GM trait coming to market needs to do so in a way that benefits the producer and doesn’t disrupt markets unnecessarily. The technology provider must also seek and receive regulatory approval in our key wheat exports markets, which we’ve defined as those that represent at least 5% of our normal export volume based on the five-year average.”

Mariani Ventura says he believes Bioceres could have some research activity underway in the U.S. once HB4 technology receives USDA clearance. He adds that the GM wheat is most likely to add value for growers in the Great Plains, including Oklahoma, where Peters battles Mother Nature each year.

“I don’t know how soon or if the U.S. will ever be ready for GM wheat,” the farmer says. “A lot of our overseas customers aren’t really ready for that technology yet, but we need to be aware of what’s going on, understand the technology and know what Bioceres is doing with it. We’ve got to embrace it and be ready for it if it does come our way.” ///

In Argentine field trials, HB4 GM wheat varieties have outyielded the same varieties without the technology, even in nonlimited environments.

COURTESY OF BIOCERES CROP SOLUTIONS

can be traced back more than a quarter-century, with plant geneticists attempting to confer traits for improved compositional characteristics, herbicide tolerance and insect and disease resistance.

The most notable U.S. example occurred when Monsanto, now owned by Bayer, developed GM wheat resistant to glyphosate herbicide. The USDA authorized field tests of Roundup Ready wheat in 16 states beginning in 1998.

While other genetically modified crops, such as corn and soybeans, have been approved for nearly three decades, they are predominantly used as animal feed. Wheat, on the other hand, is a staple food for billions of humans who consume it in breads, cakes, crackers and noodles. Consumer fears of unforeseen negative effects and grower fears over the potential loss of markets led Monsanto to abandon its GM wheat program in 2004.

Peter Laudeman, director of trade policy for U.S. Wheat Associates (USW), says there’s tremendous interest in the potential for HB4 wheat, especially from U.S. growers in regions that have dealt with drought in recent years.

“I think they would love to have that sort of product that may provide that opportunity to have a little bit more stable and consistent yields in light of drought,” he says. “HB4 wheat has been on our radar since Bioceres moved forward with commercialization, so we’ve engaged with the company in a number of ways.”

For example, a group of farmers representing USW traveled to Argentina this past November to visit Bioceres and see HB4 wheat firsthand in the field.

2 STEPS TO SOYBEAN WEED CONTROL THROUGH CANOPY CLOSURE

Locking in a winning weed management strategy begins with overlapping residual herbicides. With tough weeds like waterhemp and Palmer amaranth, soybeans often require this herbicide program to help ensure weed-free fields until canopy closure. Read on to learn more about this two-step program that will help you get there.

Step 1: Start Out Strong

Choosing the longest lasting residual herbicides allows growers to truly start clean and stay clean throughout the season. The best active ingredients to use when it comes to overlapping residual herbicides are those with the longest soil half-lives. Authority[®] Supreme and Authority[®] Edge herbicides from FMC are equipped with sulfentrazone and pyroxasulfone, which boast a lengthy half-life of 70.8 days and 34 days, respectively. Competitive actives don't come close (see chart below).

With sulfentrazone and pyroxasulfone in the tank, growers get off to a strong start with their preemergence herbicide application. The impressive residual gives growers up to 14 days longer residual weed control than competitors' preemergent herbicides.

Step 2: Bridge the Gap

Fourteen to 28 days after a preemergence application of Authority Supreme or Authority Edge herbicide, soybean growers can apply Anthem[®] MAXX herbicide, which also contains pyroxasulfone. Compared to other Group 15s that contain dimethenamid and S-metolachlor, pyroxasulfone has a 50% longer half-life equaling a longer duration of control on a broad spectrum of both grasses and broadleaf weeds. This makes it a flexible tool for growers facing multiple weed pressures.

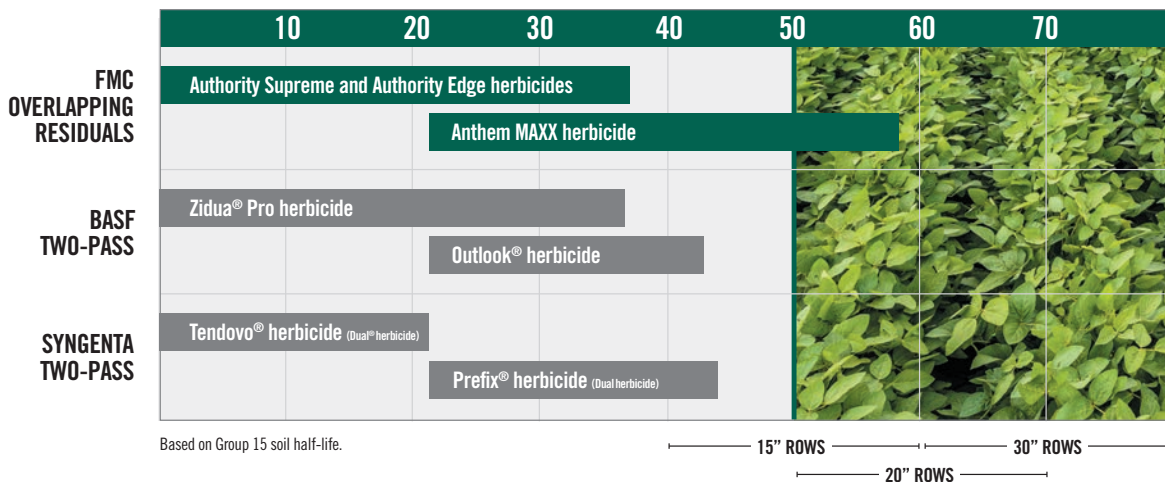
See Long-Lasting Results

Overlapping residual herbicides from FMC are built with the best active ingredients to meet soybean growers' weed control needs, helping deliver long residual control for a better return on investment. When compared to a single-pass postemergence program, overlapping residual herbicides from FMC yield 8.3 bushels more.

Deploying the overlapping residuals herbicide program from FMC amounts to less weed escapes, weed seed and more value on every acre.

DAYS TO CANOPY CLOSURE

For best results, apply second pass at 21-28 days.



In-season application of residual products should be tank mixed with foliar active herbicides to address emerged weeds and provide additional modes of action for proper stewardship.

To learn more about getting your soybean season from planting to canopy closure with the FMC overlapping residuals program, talk to your local FMC retailer or visit LOCKIN.AG.FMC.COM.



Scan the code to access the free Residual Recharge e-book.

Do You Really Know Your Family Members?

One of the great ironies in family businesses is that we often struggle to have good relationships with those we are closest to: namely, the family members with whom we work every day. Missed expectations, unchecked assumptions or failed promises create disappointment and frustration. The result is an emotional distance between family members that can often rival the span between us and neighbors or employees. This lack of communication results in working alongside “loved ones” who we may not really know in a healthy, positive way.

David Brooks, in his 2023 book “How to Know a Person,” suggests “there is one skill that lies at the heart of any healthy person ... the ability to see someone else deeply and make them feel seen—to accurately know another person, to let them feel valued, heard and understood.” Reading his book drove me to reflect on how well family members really “know” one another in terms of feeling heard or valued.

Are you a Diminisher or an Illuminator?

Brooks suggests that when it comes to interacting, you either “diminish” others or “illuminate” them. Diminishers (all of us some of the time) are only focused on others to the extent they can use them. They are self-centered, they stereotype others, and they are mostly worried about themselves. Their world is all that matters. By contrast, illuminators are interested in other people, curious about them, respectful and encouraging. You always feel good about interacting with an illuminator.

What gets in the way of knowing someone?

Several tendencies get in the way of really knowing a person. In addition to self-centeredness, we don’t take time to understand people’s thinking, or we base all interaction on a negative historical event. (What family doesn’t have a historical conflict or grudge that still

lingers?) Constant anxiety, worrying and fear also inhibit one from focusing on, and thus knowing, others.

How do you come to know a person?

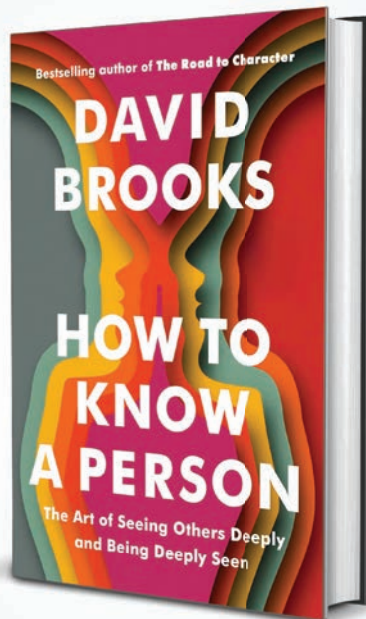
One of the steps to knowing another person is having a better understanding of yourself: your communication style, approach to conflict and strengths and weaknesses. Taking a personality profile or asking for feedback creates a more open mindset in your dealings with others.

Using good verbal and nonverbal communication skills is also important. Taking time to be present and not distracted with your family members, making eye contact, summarizing what you hear, demonstrating curiosity by noticing little things and asking good questions, and showing receptivity to others’ ideas, hopes and concerns can change the trajectory of a relationship that has been characterized by a lack of warmth.

Showing empathy continues to build a relationship. If you can identify the emotions you are seeing or hearing in the other person, and the reasons he or she feels a certain way, that person will feel valued. And, if you know a family member is struggling, simply being there helps build a bridge. Calling to check in, offering a meal or just showing up to say hello are all powerful actions in families plagued by a lack of communication and trust.

Finally, Brooks suggests you try to “see the divine” in others. Knowing they too were created in the image of God, and they also have a soul, brings us to a humbler stance, putting us on the same level with each other.

While it may seem odd that we don’t know our family members—people we’ve been around all our lives—the reality is that working in close proximity to those you love can be challenging. Brooks’ book reminds us of why and how it is important to know a person, even those we are related to. ///



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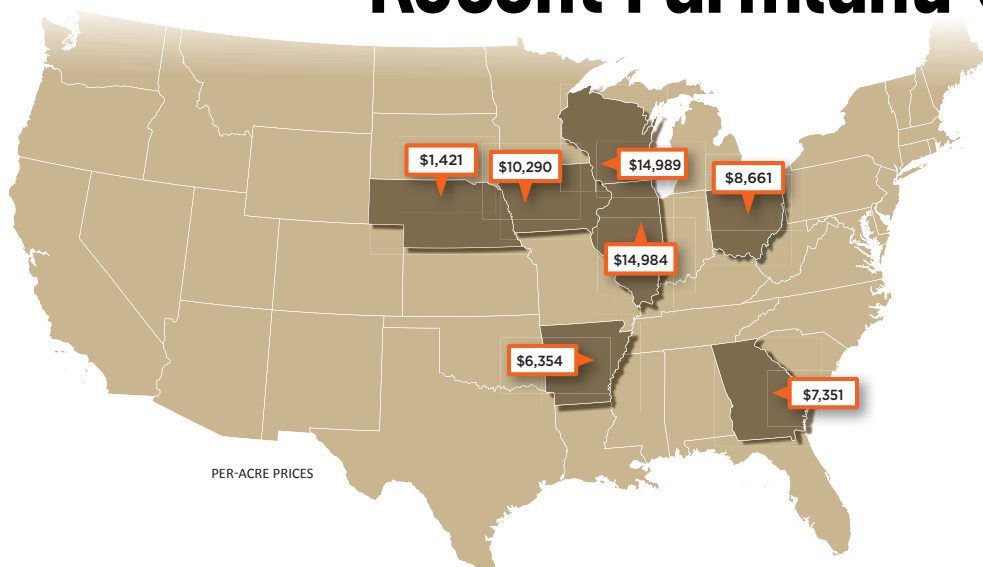
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Recent Farmland Sales



ARKANSAS, Pulaski County. A farm with 779 total acres, 662 in cultivation, sold for \$4.95 million, or \$6,354 per seeded acre (\$7,481 per tillable acre). The precision-leveled farmland, in Plum Bayou, includes four irrigation wells and three relief pumps. All irrigation is connected through extensive underground pipelines. Property has mixed soils of mostly Class II and Class III soils. The north end of the farm has much lighter soils, the south end heavier clay soils. The farm is leased to a local tenant and has a history of corn, cotton, rice and soybeans.

Contact: Jeramy Stephens, National Land Realty; jstephens@nationalland.com, 870-672-3250
www.nationalland.com

GEORGIA, Toombs County. Vidalia Valley Farm sold for \$2.977 million, or \$7,351 per acre. The 405-acre property includes nearly 250 acres under irrigation and 56 dryland acres. It features four Zimmatic pivots, a 6-inch 30-hp well, two ponds and a 38,000-square-foot farm shop.

Contact: Jason Williams, Plantation Properties and Land Investments; info@LandandRivers.com, 912-764-5263
www.landandrivers.com

ILLINOIS, McLean County. Three tracts of land encompassing 191 acres sold in an online auction for \$2.862 million, averaging \$14,984 per acre. The first two tracts, each around 77 acres, were primarily cropland and sold for \$16,000 and \$13,300 per acre. A 36-acre tract included a mix of cropland and mature timber, and sold for \$16,300 per acre. **Contact:** Kevin Haas, Sullivan Auctioneers; sold@sullivanauctioneers.com, 844-847-2161
www.sullivanauctioneers.com

IOWA, Monona County. In a dual live/online auction, 606 acres sold for \$6.236 million, with an average per-acre price of \$10,290. The sale was divided into four tracts. The first two tracts were each composed of 106 acres of cropland and sold for \$17,500 and \$13,600 per acre, respectively. The third tract was a mix of crop- and pastureland that included two bins and a cement bunk with corral for \$8,100. The final tract was listed at 238 acres, 40 of which were pasture, and sold for \$7,100 per acre. **Contact:** Jay Schaben, Schaben Real Estate Co.; dunlaplivestock@iowatelecom.net, 712-643-2350
www.jimschabenrealestate.com

NEBRASKA, Brown County. An 888-acre subirrigated hay meadow property with significant water and waterfowl hunting sold for \$1.262 million, or \$1,421 per acre. Much of the acreage can produce 2 tons of hay during the growing season. The property was offered as two tracts, the second of which included a solar well for off-season grazing. **Contact:** Dave Hickey, Farmers National Co.; DHickey@FarmersNational.com, 402-336-3500
www.fncrealestate.com

OHIO, Seneca County. Three parcels of farmland totaling 127 acres sold via private treaty sale for \$1.1 million, or \$8,661 per acre. The property included approximately 22 nontillable acres and represented lighter loam/sandy-type soils across the three parcels. The farm sold free and clear for the 2024 crop season and had no improvements on any of it. **Contact:** Steve Herr, Farmers National Co.; sherr@farmersnational.com, 810-569-5638
www.fncrealestate.com

WISCONSIN, Grant County. Two tracts of farmland totaling 173.31 acres sold in a sealed bid auction for \$2.598 million, or an average of \$14,989 per acre. The farm contains primarily silt/loam soil types and has been managed organically since 2000 and certified organic since 2003. **Contact:** Adam Crist, Peoples Co.; Adam.Crist@PeoplesCompany.com; 608-482-1229
www.peoplescompany.com

These sales figures are provided by the sources and may not be exact because of rounding.

Submit recent land sales to
landwatch@dtm.com

Find current listings at
about.dtnpf.com/landwatch

HOW TO PROTECT AGAINST THE #1 SOYBEAN DISEASE THIS YEAR

Did you know *Phytophthora sojae* is the number one soybean disease for causing substantial yield reduction in North America? This is because the *Phytophthora* fungus can kill plants at all stages of growth, resulting in stand reductions which may cause replanting or yield loss.

Yield reductions can range from as little as 5% to more than 50% depending on severity. To safeguard soybeans from this yield-robbing disease, it's critical to start the season off as strong as possible with an effective seed treatment. This will help soybean seedlings fight off early diseases that can impact them in the long run.

Pioneer is excited to bring farmers a new tool to protect their soybeans from this #1 disease with the new LumiTreo™ fungicide seed treatment. It is a powerful three-way premix fungicide, with three effective modes of action for key early-season diseases to help soybeans reach their full potential.

"LumiTreo fungicide seed treatment will bring a welcome and significant boost to yield potential as the ingredients will provide significant protection against *Phytophthora sojae*, known as the number one soybean disease for causing substantial yield reduction in North America," said Brad Van Kooten, Seed Treatment Category Leader, Corteva Agriscience. "The active ingredients include oxathiapiprolin, ipconazole and picoxystrobin."

For added insect protection, when farmers pair LumiTreo fungicide seed treatment with an imidacloprid insecticide, they will achieve a whole new level of yield potential, disease and insect protection for their soybeans – all backed by extensive research.

"Based on extensive trial research conducted over three years at 256 total locations in the U.S., this new soybean recipe will deliver disease protection, in-field performance and plantability," Van Kooten said.



"Based on extensive trial research conducted over three years at 256 total locations in the U.S., this new soybean recipe will deliver disease protection, in-field performance and plantability."

*Brad Van Kooten
Seed Treatment Category Leader
Corteva Agriscience*

"LumiTreo fungicide seed treatment will also help soybean seeds start the season off strong by protecting against common seedling diseases, such as damping off, seedling blight, and seed and root rot."

Corteva Agriscience is dedicated to empowering farmers with outstanding performance and unwavering confidence through its expanding LumiGEN® seed treatment portfolio. This portfolio is built on a proven foundation backed by the rigorous

Corteva Agriscience seed applied technologies (SAT) evaluation process. At the Corteva Center for Seed Applied Technologies (CSAT) – a comprehensive facility encompassing a laboratory, testing center and seed treating plant – potential products undergo meticulous evaluation through an exclusive six-step PASSER process (Plantability, Application, Seed Safety, Stewardship, Efficacy and Regulatory requirements). This enables Corteva to nimbly meet the evolving needs and expectations of farmers while also minimizing potential adverse effects on the environment.

LumiTreo fungicide seed treatment will be available at Corteva production facilities and downstream treating facilities this spring. To learn more about protecting and treating soybean seeds, contact your local Pioneer sales representative or visit Pioneer.com. ■



Email Dr. Ken McMillan at
vet@progressivefarmer.com

Newborn Calf Protocol

Q What factors should I consider when deciding what to give a newborn calf at birth? It seems like everyone looks at what calves should get at birth a little differently. What are your recommendations?



A **DR. McMILLAN:** Everyone looks at this differently—and for good reason. It varies greatly depending on the part of the country in which you live, and even operations in the same area may have different needs.

If a calf is normal, I want the calf up and nursing within two hours. The most important factor to calf health is getting them adequate colostrum in the first four hours. If there are any questions, I recommend giving a high-quality colostrum replacer. If the calf is cold and wet or dirty, cleaning and warming it up is critical. Anytime a calf is born in a dirty environment, the navel should be dipped with a disinfectant. I recommend tagging the calf as soon after birth as possible. This can be very helpful in matching cows to calves and identifying those always-pesky twins.

From this point on, I recommend getting with your veterinarian to develop a custom program to meet the needs of your herd. In some areas of the country, a selenium injection, or a product like Multimin, may be indicated. If your operation has issues with calf scours,

vaccines for cows and for newborn calves may help, but calf vaccines should be given within the first 24 hours. Alternatively, a product like First Defense provides antibodies to E. coli, rotavirus and coronavirus.

Additional vaccinations are controversial since a calf's immune system is not fully developed at birth. Some people feel intranasal vaccines like Inforce 3 or Bovilis Nasalgen 3 may provide early protection for the common viral respiratory diseases. Other people give a clostridial vaccine at birth, but I really question the benefit of this practice.

I would appreciate hearing what our readers do for their newborn calves. ///

Reflections From Ken

As I noted in my first “Reflections,” my wife gave me a wonderful Christmas present: a notebook with every column I had done for *Progressive Farmer* over the last 22 years. So much has changed since then. For example, in that first Ask the Vet column, the very first answer is wrong. On the first day of veterinary school, the professor told us, “I have bad news and worse news. The bad news is half of what we are going to teach you is wrong. The worse news is we don't know which half is wrong.”

Back then, the best evidence was to use a class of dewormer in goats on a regular basis until it was no longer effective. Well, we quickly ran out of classes of dewormers.

The current best evidence supports using the FAMACHA program developed in South Africa. FAMACHA is a selective deworming program where only animals with significant anemia are dewormed. Anemia is closely linked to the level of infection of *Haemonchus contortus*, or the Barber's pole worm. It also helps with the selection of animals with the highest level of resistance.

So, science marches forward, and we make decisions based on the best available evidence. Never marry yourself to the “way we always have done it.” Question everything and understand that your veterinarian's recommendations not only can change but will change over time.

The most important thing for calves to have after they are born is colostrum. Check with your veterinarian to create the best strategy for your herd.

JENNIFER CARRICO

Please contact your veterinarian with questions pertaining to the health of your herd. Every operation is unique, and the information in this column does not pertain to all situations. This is not intended as medical advice but is purely for informational purposes.

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SCAN ME



Know Before You Buy

Identifying bull-purchasing parameters can be challenging. Be sure to have the right information in hand before deciding.

Purchasing a bull for your herd can be a big job with so much information to sort through and analyze on each animal. It also can be one of the riskiest decisions made in a cattle operation, since a bull represents half of the herd's genetics.

"A bull has 10 times the impact on a herd as a single cow, and then if you keep replacements out of that bull, it becomes a lot more impactful," says Troy Rowan, assistant professor of animal science at the University of Tennessee. "Price is the No. 1 driver of a bull purchase, but producers need to look at it as an investment in their herd."

Rowan says a producer can justify spending more on a bull if it delivers extra genetic potential to the herd and provides profitable daughters that stay in the herd for six or more years. Conversely, buying the wrong bull can

also put a herd behind, so he suggests knowing what your bull is providing.

"Know your goals in animal breeding visually, genomically and phenotypically. Make selections by using all of these and knowing where your cow herd currently is," Rowan stresses. "Isolate the heritable components. Selecting on phenotype alone can be risky."

› EDUCATE BUYERS

Ross Havens, marketing coordinator at Nichols Farms, in Bridgewater, Iowa, says they have customers who have purchased bulls from them for over 50 years. Nichols Farms sells more than 450 bulls each year from Angus, Simmental, South Devon breeds and composites of these breeds. "Any and all information are available on our bulls. We provide weights, feed efficiency and EPDs (expected progeny differences) for each of the bulls, as well as the genomic information," he says.

Providing customers with this kind of information gives them what they need to make an informed decision for their herd. Bulls are put on feed using the SmartFeed bunk system to measure individual

feed efficiency. The automated cattle feeder gives each animal an average daily gain EPD, a relative feed intake EPD and a Nichols Efficiency Index. This index combines both average daily gain and feed conversion for economic gain.

“You want a lower feed intake and a higher average daily gain. The index was then developed through the genetic division at Neogen (a genomic testing company),” Havens explains. “This is new data for our customers, and we do have to educate them a bit on what to look for. We can identify the bulls with the outstanding index and use them in our own herd to keep making improvements.”

They hope customers will continue to see improvements in their own herds, and it leads to the sale of their calves and into the feedlot. Nichols Farms helps promote its bulls’ genetics when being sold at area sale barns through a listing on its website. Havens says some of the local sales will sell Nichols-bred

cattle in groups within their sales, and feedlots like to purchase these groups because of their consistency and good feed efficiency.



Ross Havens, marketing coordinator for Nichols Farms, provides customers with a host of information on each bull to help them make the right choice.

> EYE ON HEALTH

Besides feed efficiency, health is an important part of the Nichols program. Bulls are kept at the southwest Iowa facility until April 1 and must pass the Breeding Soundness Exam before pickup or delivery, as well as be current on vaccinations. This year, they also have implemented the Nichols Health Shield on bulls that qualify.

“Dave (Nichols) went to the BIF (Beef Improvement Federation) Conference in 2015 and came back with this wild idea that we could start identifying genetic lines that are resistant to certain health conditions,” Havens says. Nichols recently passed away but was always known for his forward-thinking in the beef industry and wanting to provide customers with important information. >

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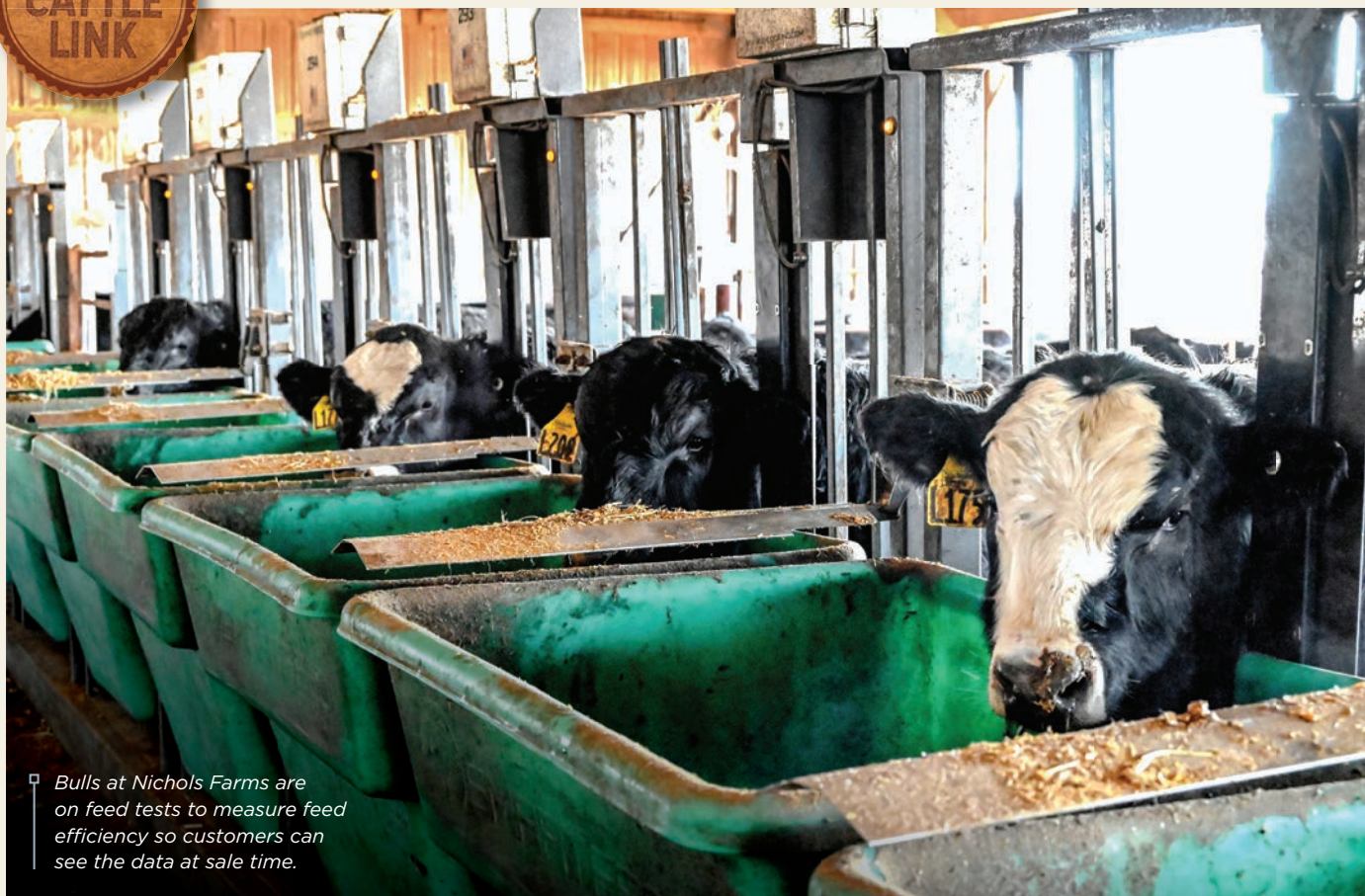
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▣ *Bulls at Nichols Farms are on feed tests to measure feed efficiency so customers can see the data at sale time.*

The Nichols Health Shield is given to bulls that are in the top 30% of Nichols Genetic Evaluation for resistance to bovine respiratory disease (BRD), one of the leading health problems in weaned calves. The probability is listed as a percentage of a calf not being treated for respiratory disease postweaning. BRD is the costliest disease in beef cattle in the country and can last up to two weeks, causing a major setback in performance.

Ear tags were used to identify the cattle getting sick, first a fever tag and then a more sophisticated tag that also triggered a signal when cattle had less movement within the pen.

“We’ve seen cattle with a high temperature still going to the bunk to eat, so if we could know there was a chance they are sick, we could treat them to prevent further loss,” he says. The tags have a blinking light to indicate a fever for longer than 6 hours and a lack of movement. The tags send information to the computer, and the farm staff has a list of cattle to pull first thing in the morning. All calves—bulls, heifers and steers—are monitored for the first 90 days after weaning.

Nichols Farms started matching sickness information with genomic information through the help of Neogen.

This genetic evaluation has information on 13,000 head over the past three years to identify the cattle more resistant to BRD.

“We keep a lot of our own bulls to use, and we want to use bulls in the top 30% of the Health Shield group and have the best feed efficiency,” Havens says. “But, we also are looking at the bulls phenotypically to ensure they are sound on their feet and legs for longevity and stayability, because they pass all this on to their offspring”

Rowan agrees. “Producers have to remember what traits will affect the bottom line and look for bulls that put that all together. First, that means a live vigorous calf. Weaned pounds are easy to evaluate, but we have to look at herd profitability and maintenance.”

The amount of data available can be overwhelming. Rowan says for each producer to identify what they want by thinking about how they sell calves and then find the range that will work.

“Having a trusted source for our customers is so important. We send bulls all over the U.S., and many of these customers trust our opinion to find them what they need,” Havens says. “They become like family when they’ve been here so many times. And, they show up when we need them, too.” ///

Scientific Discovery Stuns Doctors

Biblical Bush Relieves Joint Discomfort in as Little as 5 Days

Legendary “special herb” gives new life to old joints without clobbering you. So safe you can take it every day without worry.

According to the Centers for Disease Control and Prevention, more than 54 million Americans are suffering from joint discomfort.

This epidemic rise in aching joints has led to a search for alternative treatments—as many sufferers want relief without the harmful side effects of conventional “solutions.”

Leading the way from nature’s pharmacy is the new “King of Oils” that pioneering Florida MD and anti-aging specialist Dr. Al Sears calls “the most significant breakthrough I’ve ever found for easing joint discomfort.”

Biblical scholars treasured this “holy oil.” Ancient healers valued it more than gold for its medicinal properties. Marco Polo prized it as he blazed the Silk Road. And Ayurvedic practitioners, to this day, rely on it for healing and detoxification.

Yet what really caught Dr. Sears’ attention is how modern medical findings now prove this “King of Oils” can powerfully...

Deactivate 400 Agony-Causing Genes

If you want genuine, long-lasting relief for joint discomfort, you must address inflammation. Too much inflammation will wreak havoc on joints, break down cartilage and cause unending discomfort. This is why so many natural joint relief solutions try to stop one of the main inflammatory genes called COX-2.

But the truth is, there are hundreds of agony-causing genes like COX-2, 5-LOX, iNOS, TNK, Interleukin 1,6,8 and many more—and stopping just one of them won’t give you all the relief you need.

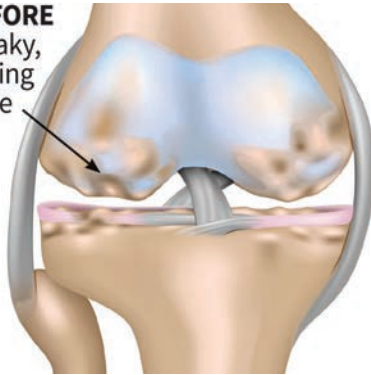
Doctors and scientists now confirm the “King of Oils”—Indian Frankincense—deactivates not one but 400 agony-causing genes. It does so by shutting down the inflammation command center called Nuclear Factor Kappa Beta.

NK-Kappa B is like a switch that can turn 400 inflammatory genes “on” or “off.” A study in *Journal of Food Lipids* reports that Indian Frankincense powerfully deactivates NF-Kappa B. This journal adds that Indian Frankincense is “so powerful it shuts down the pathway triggering aching joints.”

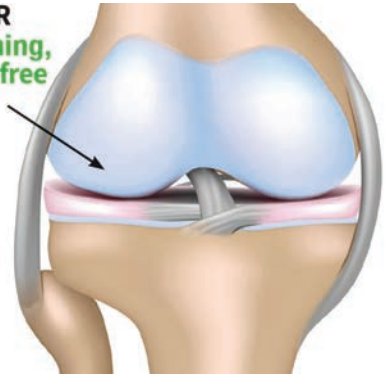
Relief That’s 10 Times Faster... and in Just 5 Days

Many joint sufferers prefer natural solutions but say they work too slowly. Take the best-seller glucosamine. Good as it is, the National

BEFORE
Creaky,
aching
knee



AFTER
Soothing,
ache-free
knee



The active ingredient in Mobilify soothes aching joints in as little as 5 days

Institutes of Health reports that glucosamine takes as long as eight weeks to work.

Yet in a study published in the *International Journal of Medical Sciences*, 60 patients with stiff knees took 100 mg of Indian Frankincense or a placebo daily for 30 days. Remarkably, Indian Frankincense “significantly improved joint function and relieved discomfort in as early as five days.” That’s relief that is 10 times faster than glucosamine.

78% Better Relief Than the Most Popular Joint Solution

In another study, people suffering from discomfort took a formula containing Indian Frankincense and another natural substance or a popular man-made joint solution every day for 12 weeks.

The results? Stunning! At the end of the study, 64% of those taking the Indian Frankincense formula saw their joint discomfort go from moderate or severe to mild or no discomfort. Only 28% of those taking the placebo got the relief they wanted. So Indian Frankincense delivered relief at a 78% better clip than the popular man-made formula.

In addition, in a randomized, double blind, placebo controlled study, patients suffering from knee discomfort took Indian Frankincense or a placebo daily for eight weeks. Then the groups switched and got the opposite intervention. Every one of the patients taking Indian Frankincense got relief. That’s a 100% success rate—numbers unseen by typical solutions.

In addition, *BMJ* (formerly the *British Medical Journal*) reports that Indian Frankincense is safe for joint relief — so safe and natural you

can take it every day.

Because of clinically proven results like this, Dr. Sears has made Indian Frankincense the centerpiece of a new natural joint relief formula called **Mobilify**.

Great Results for Knees, Hips, Shoulders and Joints

Joni D. says, “**Mobilify** really helps with soreness, stiffness and mild temporary pain. The day after taking it, I was completely back to normal—so fast.” Shirley M. adds, “Two weeks after taking **Mobilify**, I had no knee discomfort and could go up and down the staircase.” Larry M. says, “After a week and a half of taking **Mobilify**, the discomfort, stiffness and minor aches went away... it’s almost like being reborn.” And avid golfer Dennis H. says, “I can attest to **Mobilify** easing discomfort to enable me to pursue my golfing days. Definitely one pill that works for me out of the many I have tried.”

How to Get Mobilify

To secure the hot, new **Mobilify** formula, buyers should contact the Sears Health Hotline at **1-800-252-7405** TODAY. “It’s not available in retail stores yet,” says Dr. Sears. “The Hotline allows us to ship directly to the customer.” Dr. Sears feels so strongly about **Mobilify**, all orders are backed by a 100% money-back guarantee. “Just send me back the bottle and any unused product within 90 days from purchase date, and I’ll send you all your money back.”

Use Promo Code **PFMB324** when you call to secure your supply of **Mobilify**. Lines are frequently busy and due to heightened demand, supplies are limited. To secure your supply today, call **1-800-252-7405**.

Deere Talks Value of Tech

Chief Technology Officer discusses the company's equipment advances and pay-as-you-go approach.

>By Dan Miller, @DMillerPF



Jahmy Hindman

DTN/*Progressive Farmer* recently sat down with Jahmy Hindman, chief technology officer for John Deere, at CES 2024, in Las Vegas. Hindman is responsible for building Deere's "tech stack," the company's end-to-end equipment solutions, made up of hardware and devices, embedded software, connectivity, data platforms and applications. He also leads the company's Intelligent Solutions Group (ISG) and is responsible for Deere's network of technology and innovation centers.

We've chosen three questions and answers from our interview with Hindman. See the entire interview by scanning the QR code at the top of this page.

DTN/PF: Some farmers would tell Deere and other OEMs (original equipment manufacturers) that modern equipment lines are hard to maintain financially. How would you respond?

HINDMAN: The goal for us is to drive efficiencies and value to the grower. If we're not doing that in a way that is commensurate with their business, then we have to think how we create more value with the solutions we provide in the market. With some of this technology, it is expensive if you look at the technology that is deployed in See and Spray, for example, where you've got a significant amount of computing capability. You've got 36 cameras, a carbon fiber boom—how do we approach the market with a different business model that helps a customer digest that technology in a different way than they have in the past where it is pay for everything up front and depreciate it over time? There is this opportunity of "solutions as a service (a license fee)," a pay-as-you-go opportunity. [But] that gets complicated, because every technology creates a different amount of value. So, we end up experimenting with growers to understand how they want to digest that technology, what's the best business model for their farm.

DTN/PF: How does the "solutions as a service" model bring benefit to the productivity of a farm?

HINDMAN: At its core, it is trying to lower the upfront cost of the value creation, the hardware, and distribute some of that cost into a licensing model—an annual arrangement or a per-

use fee to help spread the cost of the technology across the use the grower has for that technology. They only pay for it when they use it, and that makes it somewhat proportional across the range of growers that are going to be consuming it. [This] also opens the opportunity for the technology to get better with time. You can continue to use that same hardware ... to create more value. If you think of See and Spray today, we run in corn, soybeans and cotton. But, the same hardware set is being used in other production systems. If you are a grower farming corn, soybeans or cotton, plus something, you [will be able] to use the See and Spray technology for whatever that plus-something is.

DTN/PF: Everyone is talking about artificial intelligence (AI). What does AI mean for the grower?

HINDMAN: AI is already happening in agriculture. [Deere's] autonomous tractor is running an AI algorithm for perception through stereo cameras. See and Spray is running an AI algorithm to discriminate weeds from healthy crops. Machine learning, computer vision, types of artificial intelligence—farmers are going to see more and more of that. AI isn't static. It will mean different things over time. The latest and greatest thing 12, 13, 14 months ago was ChatGPT. I think [it] will have uses in agriculture to make sense of data.

We talk about this data problem, you're data rich and insight poor. In many cases, artificial intelligence technologies are better than humans in doing complex pattern recognition. So, looking through all the data and trying to understand patterns, what makes sense and what influences the outcomes. I think we'll see AI deployed against those large agricultural data sets on the farm level to help surface insights for growers and what that data is actually telling them. ///

Bobcat Talks Batteries and Autonomy

Also at CES 2024, Bobcat's VP of Global Innovation Joel Honeyman talks about Bobcat's newest innovations in battery power, autonomous operations and its advanced display technology—an application displaying jobsite data, camera imagery and task planning onto a glass surface (here, onto the cab door of Bobcat's new battery-powered S7X skid-steer loader).



Joel Honeyman

Watch the Video



<http://tinyurl.com/4wdac582>

DTN

Watch the Video



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PF0324



What's in Your Battery?

I have an S185 Bobcat skid steer. It has a problem with the battery going down when it's running and being used. The battery holds a charge when it's shut off. I have had the battery checked by one repair shop, which said it was bad. But, I took it home and charged it, and the battery charger said it was charged. So, I took it to another shop, which said the battery was good. But, after I run the Bobcat for about 40 minutes or so, the battery goes dead.

This Bobcat has no life now, let alone nine. I took the alternator to a reputable alternator repair shop, and after testing it, the tech said the alternator was putting out 17 volts and strongly recommended that I replace it. He sold me a new alternator, and I put it on—with the help of both neighbors. Wow, what a job; it's way up in there! So, guess what. It still won't charge. What next?

Steve: I believe you have a wiring problem. In order to check the wiring to the alternator, all you need is a test light. The

alternator on your Bobcat has the big wire that goes back to the starter solenoid and is mated to the terminal that goes there from the positive post on the battery.

The other two wires are in the pigtail (see photo, left) that fits on the back of the

alternator (this is a common setup among many machines). One of these wires is hot, even with the key off. The other wire is hot only with the key on. This wire excites the alternator with voltage that allows it to begin charging.

More than likely, you have a blown fuse in your control panel (marked ALT in the photo, right). This fuse was probably blown when the alternator began overcharging, possibly eliminating a fire by shutting down the alternator.

If this fuse is blown, the alternator will not charge because it powers up the wire that is hot when the key is on. Replace the fuse, and I'm confident the new alternator will charge.



PHOTOS: STEVE THOMPSON



Have a mechanical problem you can't resolve? Email Steve Thompson at mechanic@progressivefarmer.com

Please include your contact information and phone number.

Cold-Blooded Truck

My electric truck did not work so well in the extremely cold weather this winter. What can I do to help maintain the range the truck had last summer?

Steve: Your electric truck will probably never have the range it had during the warmer months. Anything electrical depends on the flow of electrons, and when the temperature drops below 20°F they are just like us; they don't move as fast as they do during warm weather.

The electron is a very, very small negative electrical charge, a billionth of a billionth of the radius of a meter. We all know that an atom is small, but it's 100 million times larger than an electron that is part of the atom.

The two things you can do to help your range is try to keep the truck's inside temperature as low as possible, because the heater consumes voltage from the same batteries that drive your truck. You must remember that the gas engine supplies the heat for the inside of your truck. Also, allow time for your truck's interior to warm up before you unplug the charger and start your trip. This will allow you to leave with a higher charge in the batteries. ///

SAFETY TIP

Never attempt to charge a frozen battery. The amount of charge in a battery reflects the temperature at which it will freeze. A battery with an available voltage of 11.5 volts is considered "dead." The sulfuric acid and distilled water mix in a battery becomes displaced as the charge in the battery decreases, allowing it to freeze at a higher temperature. A frozen battery can explode when a charger is hooked up to it. Always check the outside of the battery for cracks and inside all cells for ice before charging a battery that could possibly be frozen.



IMAGE GENERATED BY MICROSOFT BING DALL-E 3

New Blood Flow Breakthrough Helps Men Enjoy Strong, Long-Lasting Intimacy – At Any Age

Men across America are raving about a newly enhanced potency supplement that helps achieve healthy blood flow on demand

After age 40, it's common knowledge that performance begins to decline in many men. However, a new, performance empowering pill is showing that any relatively healthy man can now enjoy long-lasting, and frequent intimacy – at any age.

This doctor-designed formula, created by leading anti-aging expert Dr. Al Sears, has already helped men overcome low and sinking libido -- and has recently undergone a potency-enhancing update – with remarkable new results.

When the first pill -- **Primal Max Black** -- was first released, it quickly became a top-selling men's performance helper, promoting intimacy across America.

It worked by supporting healthy testosterone levels. However, Dr. Sears soon realized that this isn't the only challenge men face with performance. That's when he turned his attention to blood flow.

And this became **Primal Max Red**.

THIS PROVEN SOLUTION IS MORE MECHANICAL THAN HORMONAL

Truth is, once blood flow slows down for men, no matter how exciting it is, it won't be enough without the necessary amount...

So enjoying intimacy without healthy blood flow becomes difficult for most men.

Luckily, a Nobel prize-winning scientist discovered the simple answer to help support performance strength and confidence -- by boosting vital blood flow --

and enhancing this essential performance function.

Using this landmark Nobel Prize as its basis, **Primal Max Red** enhanced healthy blood flow for untold millions of men around the world with the use of strong nitric oxide boosters.

While **Primal Max Black** helped maintain optimal testosterone, **Primal Max Red** tackles a lesser-known challenge.

Director, Al Sears MD, who has authored over 500 scientific papers and has appeared on more than 50 media outlets including ABC News, CNN, ESPN, Discovery, Lifetime, and many more say, *"Less than optimal blood flow can be part of a huge problem that affects a lot of men. And it needed to be addressed once and for all, so men would not dwell on it. Then, once we optimized it and had a great deal of success, we set out to see if we could do even better."*

The former formula had excellent results. However, new research showed that for even faster, anytime, anywhere results, increasing the dose of a key compound was needed.

So, one of the three nitric oxide boosters in the new **Primal Max Red**, L-Citrulline, was clinically boosted to 9000 mg, and the results were astounding. Which is no surprise considering that 5000 mg is considered a "normal amount" -- giving the new version nearly doubled the blood flow boosting power.

Men who had previously been unsure about their power and stamina were overjoyed to be back to their



A new discovery that increases nitric oxide availability was recently proven to boost blood flow 275% - resulting in improved performance.

old selves and to get and maintain a healthy bloodflow when they needed it.

BETTER BLOOD FLOW, STRONGER RESULTS

The best way to promote healthy blood flow throughout the body is with the use of **Primal Max Red**. By using it, when exciting signals leave the brain, blood flows much faster like it used to.

This critical action is how men across the country are enjoying full and satisfying performance at any age. No need to bother with testosterone-boosting shots, blue pills, or shady capsules that have no effect.

Primal Max Red can effectively promote healthy blood flow that most men can use for maximum intimacy. This is leading to more greater capacity and satisfaction, coupled with long-lasting performance.

"There was a time when men had little control when it came to boosting their blood flow," Dr. Sears said. "But science has come a long way in recent years. And now, with the creation of nitric oxide-boosting **Primal Max Red**,

men can perform better than ever, and enjoy intimacy at any age."

Now for men across America, it's much easier to stay at their performance peak as they get older.

HOW TO GET PRIMAL MAX RED (AND FREE PRIMAL MAX BLACK):

To secure free bottles of **Primal Max Black** and get the hot, new **Primal Max Red** formula, buyers should contact the Sears Health Hotline at **1-800-902-5521** TODAY. "It's not available in retail stores yet," says Dr. Sears. "The Hotline allows us to ship directly to the customer." Dr. Sears feels so strongly about **Primal Max**, all orders are backed by a 100% money-back guarantee. "Just send me back the bottle and any unused product within 90 days from purchase date, and I'll send you all your money back."

Call NOW at **1-800-902-5521** to secure your supply of **Primal Max Red** and free bottles of **Primal Max Black**. Use Promo Code **PFPMAX324** when you call. Lines are frequently busy, but all calls will be answered!

> Story and Photos By Des Keller



Farmers Strike CAROLINA GOLD

Prospecting for ideas to satisfy a love for duck hunting, two growers turn heirloom rice into a business.

The desire of two duck-hunting buddies in North Carolina to create more habitat for their habit has led to a burgeoning value-added rice business that embraces the challenge of growing the very same variety brought to the U.S. on merchant and slave ships more than 300 years ago.

In the process, their company, Tidewater Grain, fully acknowledges and shares the story of the crop's original dependence on slavery. The journey, for partners Al Spruill and Tommy Wheeler, began a few years ago with their plan to create more water habitat to accommodate more duck hunting—and more duck hunters.

“We had a 17-acre pond but needed to expand,” says Spruill, whose family has farmed in the coastal Oriental, North Carolina, region of Pamlico Sound for 12 generations. “We had more kids and grandkids all the time that wanted to hunt.”

The idea, of course, was to create impoundments into which crops would be planted then flooded to attract

waterfowl. Spruill and Wheeler are founding members of a local hunting club, whose members—friends and family—provided plenty of support for the project.

“The cost to plant corn, for example, is expensive, and you're then destroying the crop to flood the field for ducks,” says Spruill, who farms 4,000 acres with his son, Andrew. “Tommy Wheeler and I wanted to find something more sustainable.”

> RICE REVELATION

Both Spruill and Wheeler had hunted in Arkansas' famed Rice and Duck Capital of the World region, near Stuttgart. Tens of thousands of acres of flooded fields of rice in that waterfowl migratory route make for world-class habitat and hunting.

Could they grow commodity rice in smaller plots in coastal North Carolina—and be able to recoup some of the cost by selling the crop?

The answer, as it turns out, is not really. There was no elevator or mill in the region to take conventional rice for processing. They'd likely have to ship it to

Al Spruill (left) and Tommy Wheeler are growing and promoting what was once the preeminent rice grown in the U.S.



Arkansas, and the extra expense would more than negate any income.

Enter Carolina Gold, the gangly rice descended from seeds brought to the U.S. in the 1680s and planted in southern coastal areas. By the mid 1800s, the multi-state region of the Carolinas, Georgia and Virginia was known as The Rice Kingdom, and Carolina Gold was the preeminent rice in the U.S. An estimated 100,000 acres was devoted to the crop along the coast with the help of plentiful water and enslaved people.

The end of slavery after the Civil War greatly curtailed labor-intensive Carolina Gold production on the Southeast coast, and by early in the 20th century, hybridized rice cultivation was moving to Arkansas, Louisiana and Texas. There, huge flat fields with plentiful water made the most of farm mechanization to plant and harvest rice.

Carolina Gold seeds remained in several hands (public and private) over the decades, particularly in Louisiana, South Carolina and Texas. By the early 2000s, a group of ag scientists, chefs, food historians and farmers created the Carolina Gold Foundation to

Lauded chef Ricky Moore (above) uses Carolina Gold Rice at his Saltbox Seafood Joint restaurant.

preserve, promote and propagate that rice—and other historical grains/foods.

➤ FROM HOBBY TO BUSINESS

Carolina Gold seeds were maintained by USDA in Louisiana and Texas, points out David Shields, chairman of the board of the Carolina Gold Rice Foundation. An English professor and a noted food and culture historian at the University of South Carolina, he says: “This rice seed was kept because it was the standard for flavor and mouthfeel. Many of the new hybridized rice varieties have genetics of Carolina Gold.”

One reason Carolina Gold isn’t generally raised commercially is the stalks grow more than 5 feet tall, which makes the plant susceptible to lodging. A second reason is that the rice, whose genetic origins are Indonesian, doesn’t yield anywhere near conventional rice of today.

Spruill and Wheeler worked with the foundation to learn about the rice and then source seeds. They planted 3 acres of their own in 2019 with low expectations. Spruill impounded and flooded the 3-acre plot after planting Carolina Gold seed. They managed to harvest their first crop.

“I thought it was a failure from the little bit of rice in the back of our truck,” Spruill says. “It was about 9,000 pounds total, so 3,000 per acre. ‘We’ll never do this again,’ I thought.” Typical hybridized commodity rice yields 8,000 to 10,000 pounds per acre.

They were in for a surprise when they took the grain to be processed. “The miller in South Carolina who could handle this amount told us, ‘Y’all did outstanding—you got this much off 3 acres,’” Spruill explains. Apparently, an expected yield from Carolina Gold would be about 2,500 pounds per acre.

➤ MARKETING THE NICHE

Buoyed by their relative success on yield, Spruill and Wheeler had their rice tested by several chefs and others for flavor and usability. The response was very favorable. ➤

“Tommy and I looked at each other and said, ‘Let’s move on this, let’s do this thing,’” Spruill says.

This “thing” was their idea of packaging, branding and selling their own rice, and they dubbed their company Tidewater Grain. Wheeler, who worked for years managing a NASCAR racing team, had experience developing and promoting a brand.

Wheeler laughs: “The original business model was to lose somewhere less than \$500 per acre. That’s because this experiment had 100% been about more duck hunting, not growing or marketing rice.”

They saw the new business as possible because, despite low yields and challenges growing it, Carolina Gold Rice is terrific—to taste and to smell. There’s a rich depth of flavor with the rice that can be made to be light and fluffy, or cooked down to a sticky consistency. Advocates say it can stand by itself on the plate, and the nutty, almond, almost floral scent is enticing.

The fledgling business received a boost from the North Carolina Dept. of Agriculture and Consumer Services, which promotes state-made products with the Got To Be NC program. Chad Blackwelder, the department’s food marketing specialist, encouraged the “Tidewater Boys” to staff a booth at the annual Flavors of Carolina show. The show is a business-to-business upscale trade show for retailers, distributors and restaurants.

> A WARM RECEPTION

“I had heard they were bringing back Carolina Gold, and as a chef myself, I know that’s an important, coveted ingredient,” Blackwelder explains.

Even though they had a few thousand pounds of rice in storage, Wheeler says they wanted to make sure “we are going to do this right.” Their booth featured a professional logo backdrop, and they wore Tidewater Grain caps and vests. “Our goal was to find one customer.”

When Blackwelder stopped by the booth several hours into the trade show, Spruill and Wheeler were already having a beer at the bar. “This doesn’t look good,” Blackwelder thought to himself.

Turns out they had a reason to celebrate. “We sold everything we had produced on 3 acres within the first

hour of the show,” Wheeler adds. “We also realized we didn’t have enough acres set to grow the next year to cover just the people we talked to that day.”

Tidewater Grain went from 3 acres to 40, to 70, to 120 acres in subsequent years. They planted 170 acres in 2023 and have their sights set on 500 acres down the road. In 2022, Tidewater Grain finished building its own rice mill to sort and package the grain. It is now also milling rice flour and selling the popular “middlins,” or broken rice, as a kind of grits.

The company has intentionally spread its sales among retailers, restaurants and food service wholesale. One of its first clients was the Charlotte, North Carolina-based wholesale service, Freshlist, which distributes North Carolina products to Charlotte-area chefs. Players with the NFL’s Denver Broncos are also eating Carolina Gold at the training table.

> THE FOOD OF HISTORY

“Tommy was, and is, very careful about how they market the rice,” Blackwelder says.

Wheeler, for example, was forthright when chefs—including several black chefs—visited the farm as part of a GTBNC [Got To Be NC] Chefs Field Trip. “We are growing a historically African crop,” he says. “The only thing that Al and I can do is pay homage to that ... we take that very seriously.”

One of the chefs was Ricky Moore, who owns the lauded Saltbox Seafood Joint, in Durham, North Carolina, but grew up in this coastal region. “For me, to find out there’s an historically significant rice growing here was super intriguing,” says Moore, who was named the Best Chef: Southeast by the prestigious James Beard Foundation. Moore uses Carolina Gold in his restaurant. “To be in these fields with it solidifies everything, and I can share this information authentically,” he says.

In the farmhouse that serves as the offices and duck-hunting club headquarters for Tidewater Grain, there is an entire room filled with camouflage hunting equipment: guns, overalls, decoys and boots. Tidewater Grain’s business may be taking off, but its owners are never far away from the avocation that brought them here. //

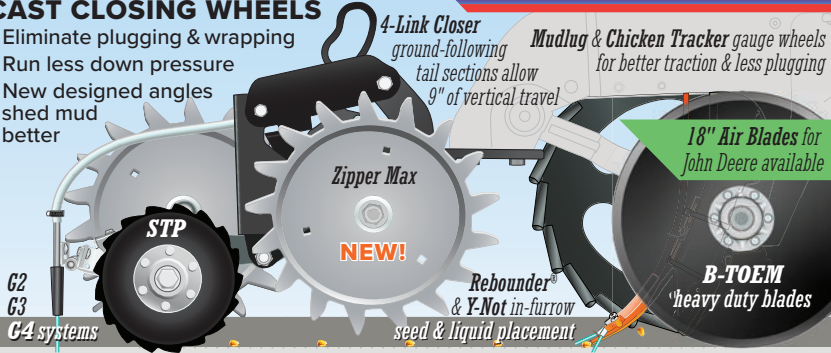


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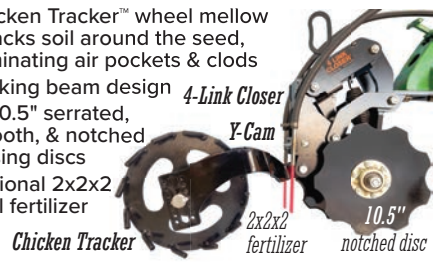
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Faith



*“Stand straight,
walk proud, have
a little faith.”*

—Garth Brooks

JOHN MCKINNEY, PROGRESSIVE FARMER ARCHIVES, 1954

Faith includes noticing the mess, the emptiness and discomfort, and letting it be there until some light returns. Faith also means reaching deeply within, for the sense one was born with, the sense, for example, to go for a walk.

ANNE LAMOTT

Faith gives you an inner strength and a sense of balance and perspective in life.

GREGORY PECK

And he charged them, saying, Thus shall ye do in the fear of the Lord, faithfully, and with a perfect heart.

2 CHRONICLES 19:9 (KJV)

Faith is to believe what you do not see; the reward of this faith is to see what you believe.

ST. AUGUSTINE

If you lose faith, you lose all.

ELEANOR ROOSEVELT

Faith is taking the first step even when you don't see the whole staircase.

MARTIN LUTHER KING JR.

To love means loving the unlovable. To forgive means pardoning the unpardonable. Faith means believing the unbelievable. Hope means hoping when everything seems hopeless.

G.K. CHESTERTON

The smallest seed of faith is better than the largest fruit of happiness.

HENRY DAVID THOREAU

Faith is the strength by which a shattered world shall emerge into the light.

HELEN KELLER

I'm not perfect. I'm never going to be. And that's the great thing about living the Christian life and trying to live by faith, is you're trying to get better every day. You're trying to improve.

TIM TEBOW

All I have seen teaches me to trust the Creator for all I have not seen.

RALPH WALDO EMERSON

I have not lost faith in God. I have moments of anger and protest. Sometimes I've been closer to him for that reason.

ELIE WIESEL

Faith consists in believing when it is beyond the power of reason to believe.

VOLTAIRE

Faith and prayer are the vitamins of the soul; man cannot live in health without them.

MAHALIA JACKSON

Now faith is the substance of things hoped for, the evidence of things not seen.

HEBREWS 11:1 (KJV)

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