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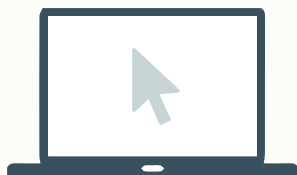


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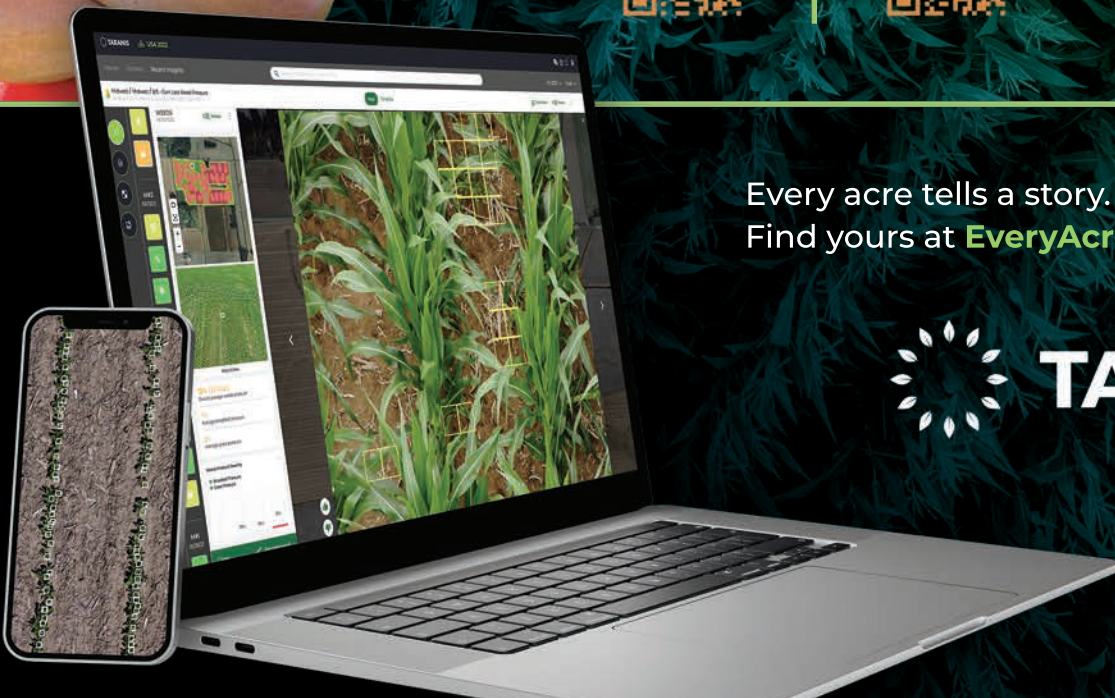
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**ON THE COVER**

Travis Couch's DJI Agras T30 aerial spraying drone zooms over a corn field in Butler County, Pennsylvania.

PHOTO BY JOEL REICHENBERGER

Aerial spraying drones seem to be here to stay for some farmers, but continued rapid advances in technology could help their role expand even further.

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# Cash Rent Reset in 2025?

“Something has to give.” That’s a comment a farmer recently shared with me as he contemplated cash rents for 2025.

He’s not alone. No doubt many farmers who lease land have already started conversations with landowners as they evaluate, calibrate and negotiate terms for next season.

Conversations between parties can be complex since each has different priorities and purposes. On the other hand, you and your landlord also have similar goals—namely, to maximize profit per acre. The dilemma is how to achieve that to the satisfaction of both parties.

Above-average farm income from 2020 to 2022 helped drive up current cash rents (2022 was a record year for net farm income). In Illinois, for example, per-acre returns on a 50/50 corn/soybean rotation on highly productive farmland in central Illinois during that period was \$125, \$314 and \$249, respectively.

Higher cash rents followed. According to the National Agricultural Statistics Service (NASS), the average rate in Illinois in 2024 was \$269 per acre, a new record for the state, while county cash rents ranged from a low of \$71 per acre to a high of \$377 per acre. Between 2020 and 2024, average cash rents in Illinois increased by \$47 per acre.

Cash rents on professionally managed farmland in the state are even higher, averaging \$79 more, according to the Illinois Society of Professional Farm Managers and Rural Appraisers (ISPFMRA).

## > ECONOMIC PRESSURES PERSIST

Illinois offers but a snapshot of the nation’s cash rents. Rates vary widely across regions depending on the type of crops grown, soil productivity, supply and demand for farmland, and many other factors.

Regardless, low commodity prices have soured the state of the farm economy, as have higher costs for labor, interest and taxes, as well as reduced government support. Crop farmers, in particular, are examining their budgets and looking for ways to cut expenses, as many are seeing negative returns on every

acre. USDA projects 2024 cash receipts from corn sales to plummet 20% from a year ago, with soybean receipts falling 14.6%.

Low returns are also expected for 2025.

## > ADJUSTMENTS AHEAD

Faced with this economic environment, many farmers will be sitting down with landowners looking for cash rent relief. The challenge will be coming to a bottom-line agreement acceptable to both. I’ve known many situations over the years where negotiations became contentious because of unreasonable demands and/or expectations by either party. It certainly doesn’t have to—and shouldn’t—come to this.

Successful negotiations require both sides listening to and understanding each other’s rationale and viewpoints.

It also helps to stick with the facts. The goal is to remain objective, not emotional. Present a numbers-based analysis that supports your position. For farmers, include your actual profit and loss, input cost and cost of production data, and university cost of production budgets, recommends Nick Horob, founder of Harvest Profit, a financial software company for farmers that was acquired by John Deere in 2020.

In addition, include farm details such as a recently completed improvement project and ideas for the landowner to improve his or her farmland. Show that you both share a vested interest in continuing the business relationship.

Also, present other options. While most landowners prefer a straight cash rent arrangement, you would be remiss not to present additional choices, such as some sort of flex rent/crop share structure. Either offers more flexibility than cash leases since both parties can benefit from splitting the revenue of an especially successful harvest, Horob points out.

Cash rent negotiations can be tough. You can agree to disagree, but a candid conversation can still result in a satisfactory outcome for all parties. ///

  
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# Key Tax Provisions Every Partnership Agreement Needs

I seem to be reviewing a lot of partnership agreements lately. The tax provisions contained in these agreements are vital and can sometimes be overlooked. Most people think a partnership agreement just allocates profit and loss, but there is so much more to it than that. I thought it would be good to go over a few basic items when looking at the tax provisions in an operating agreement.

Here are some of the key tax provisions a partnership operating agreement should contain and why they should be in the agreement.

**The tax classification of the partnership.** That is, whether it will be taxed as a partnership/LLC, a C corporation or an S corporation. Sometimes state law will dictate the type of entity (partnership or corporation), but federal tax law will determine how it is taxed. The type of entity can be as much a legal question as a tax question. However, because of flexibility, most people opt for a limited liability company (partnership).

**The allocation of profits and losses among the members.** This is how the income and losses of the partnership will be divided and reported by the members for tax purposes. In an operating entity, the profit and loss percentage can be different from the capital (ownership). If one party does more work, he or she may be allocated a higher percentage of the profits/losses to reward them. This also can be done through guaranteed payments if you want the profits/losses to mirror ownership. In a passive partnership, such as a land rental entity, it might be difficult to justify one person getting a higher percentage of profits/losses than his or her ownership.

As a side note to allocation of profits and losses based off ownership percentage, in a partnership, you can have multiple classes of units (an S corp can't have more than one class of stock with different economic rights). This might be beneficial if one owner puts in a significant amount of money compared to the rest and wants a rate of return. He can have a preferred class of units that give him the first X% of profits or X% rate of return based on

his capital contribution before the rest of the profits are split based on ownership.

**Another provision is the distribution of cash and property among the members: how and when the partnership will make payments or transfers of assets to the members and how they will be taxed.** Typically, a partnership will be required to make tax distributions. That way owners will have the cash to pay taxes associated with partnership profits.

**A complex provision(s) is the tax basis and capital accounts of the members.** This is how the members' investment and ownership interest in the partnership will be tracked and adjusted for tax purposes. This gets into minimum gain charge-backs, qualified income offsets and 704 language that is too technical for this article. However, they are very important if you guaranteed debt (especially if not every owner guarantees the debt).

As you can see, a partnership agreement isn't boilerplate. Thought must be given to even the most basic partnership. I always suggest that you involve both your accountant and attorney in the process. It's better to do it right in the first place rather than have to go through a long, protracted legal battle when issues arise down the road. ///



**Rod Mauszycki**

DTN Tax Columnist  
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► Read Rod's "Ask the Taxman" column at **ABOUT.DTNPF.COM/TAX**

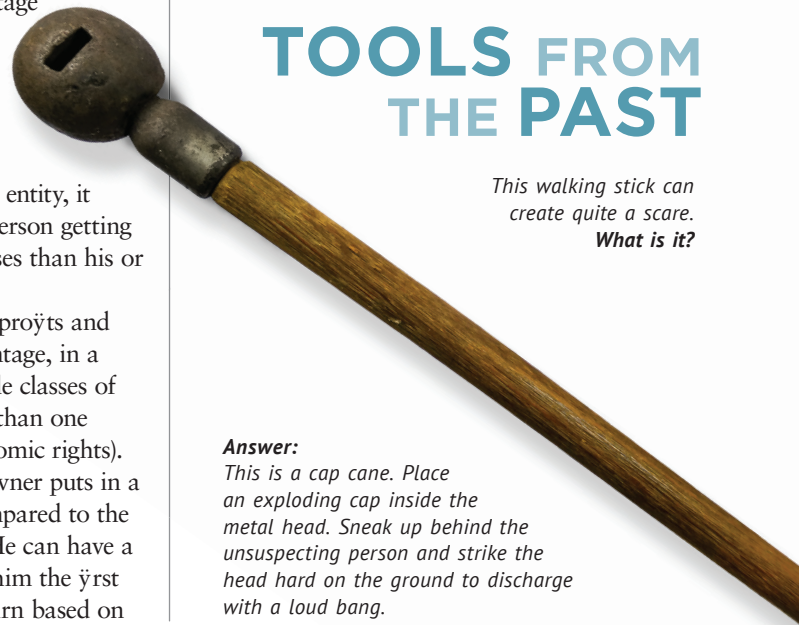
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## TOOLS FROM THE PAST

*This walking stick can create quite a scare. What is it?*

**Answer:**

*This is a cap cane. Place an exploding cap inside the metal head. Sneak up behind the unsuspecting person and strike the head hard on the ground to discharge with a loud bang.*





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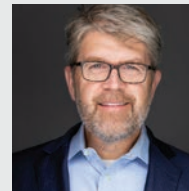
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# Corn and Soybean Prices Collapse Due to Big Crop Estimates

After the record corn harvest of 2023, it became clear the era of 2-billion-bushel (bb) corn surpluses was back, and prices would have to find a new, lower trading range. For soybeans, there was also a bearish adjustment, but it was more gradual. A modest U.S. soybean harvest in 2023 was followed by a big soybean harvest in Brazil in early 2024, which cut into demand for U.S. soybeans and pushed U.S. ending soybean stocks up, from 264 million bushels (mb) in 2022–23 to 345 mb in 2023–24.

The start of the 2024–25 season had potential to tilt supplies in either direction and got off to a rough start, as numerous bouts of severe weather hit major producing states from late April through June. High winds, tornadoes, hail and flooding damaged crops in high-yielding areas more often than usual. Pockets of damaged acres are still lurking across the country, outnumbered by healthy corn and soybean crops that benefited from the best soil-moisture conditions the Midwest has experienced in at least four years.

USDA’s “World Agricultural Supply and Demand Estimates” (WASDE) report on Aug. 12 predicted a record corn yield of 183.1 bushels per acre in 2024 and a record 4.589-bb soybean crop. The estimates were supported by approximately 14,200 producer surveys, weather data and acreage records from the Farm Service and Risk Management Agencies. The corn and soybean estimates, however, won’t include yield-based yield data until Sept. 12, so there is still plenty of room for error.

For producers, the tragic side of this year’s big crops is that corn and soybean prices have collapsed to levels not often seen, especially since 2007, when the rise of the ethanol market increased farm profitability. As I write this in mid-August, the price of December corn is \$3.90 a bushel, 19% below USDA’s estimated cost of production. The last time December corn prices were this unprofitable was in the summer of 2020, when markets were frightened by the global pandemic and talk of a possible 3-bb carry. In terms of supply prospects, today’s corn market is not that bad. Demand is moving cheap corn at a near-record pace.

For November soybeans, the current price of \$9.60 a bushel is 18% below USDA’s cost of production estimate. That level of unprofitability has not been seen since 2018 and 2019, two years of tariff disputes with China, when annual U.S. soybean demand dropped below 4.0 bb. Again, today’s soybean demand is much better than those two earlier years, but I must admit the threat of Brazilian expansion may hang over prices again in 2025.

My argument is that prices are too cheap from a fundamental view, and I can show several times in the past when a surprise came along and shook markets out of their bearish doldrums. Unfortunately, high interest rates are currently encouraging specs to be heavily short in

corn and soybeans, and it is difficult to say how long this bear will last. We’ve been in this spot before, but it never seems to get any easier. ///



December  
**corn**  
**\$3.90**  
*a bushel*  
**19%**

*below USDA's  
 estimated cost  
 of production*



November  
**soybeans**  
**\$9.60**  
*a bushel*  
**18%**

*below USDA's  
 estimated cost  
 of production.*

PHOTOS: GETTY IMAGES



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# “Old Guy” Reflects on the ‘80s And Next Generation’s Cost Crunch

**Southern Indiana farmer Scott Wallis** farms with his son and son-in-law, and sometimes his 40 years of experience makes him feel like a permabear, always popping the young gun’s bubbles.

“I’m the old guy, so it’s kind of my job,” the 61-year-old farmer says with a chuckle.

But, in other ways, being the old guy is reassuring. Wallis farmed through the grind-it-out, tough-it-out 1980s and ‘90s.

“I don’t remember a time in the ‘80s and ‘90s when we were just flush,” he says. “You just paid your bills.” If something was torn up, he adds, “maybe you replaced it, or more likely you just kept fixing it until you couldn’t fix it anymore. You make a living and then just move on to the next year.”

Younger generations haven’t been through anything like it before, and they’re facing additional challenges with the current down cycle, Wallis explains.

“They’ve got something that’s worse than the ‘80s, and that’s the price of machinery compared to farm size or gross income,” he says.

When Wallis graduated from high school, a combine with heads cost \$50,000 to \$60,000. The farm’s goal was to gross \$400,000. While the payments would be spread out over several years, the equipment cost about 12.5% of the farm’s targeted earnings.

Today, a combine with corn and soybean heads costs \$1 million. If the farm’s goal is to gross \$4 million, the equipment is now 25% of the farm’s earnings.

“That problem is magnified in everything we use equipment-wise,” he says. “That’s the economic woe that I think is worse than the 1980s. The interest rate ain’t near as bad.”

Wallis remembers when his father first used an operating note in 1982. It had an 18% interest rate. “When things got down to 10%, we thought it was free,” he says.

Then, Wallis experienced almost free money when interest rates dropped to historic lows and was grateful for the opportunity to buy land when rates were



MARYANN CARTER

low. Like most farmers, he wishes he’d bought more land.

“Whether you have debt on it or not—as long as it cash flows—it’s worth more when you own it,” he says. Over time, the farmer benefits from the land’s appreciating value as well as from lower or more flexible expenses compared to paying market-rate cash rent.

University of Illinois crop budgets for 2024 show cash rent will likely be a dividing line, if not between the profitable, between those who suffer the steepest losses. For a highly productive central-Illinois corn farm, gross revenue (calculated using an average price of \$4.50) minus total nonland costs is \$210 per acre. If the farmer pays \$363 per acre cash rent, his total return is negative \$153.

“The biggest challenge I see in the Midwest is the lack of equity among farmers who don’t own very much land,” Wallis says. “They don’t have anything to fall back on.”

Historically, farmers lean into land equity to get through difficult economic times. As farmers stop spending, the buyer pool for farmland will shrink, although Wallis believes increasing nonagricultural investor interest will keep prices from retracting as sharply as they did in the 1980s.

While that’s good news for landowners, it’s emblematic of the challenge facing the next generation of farmers: It’s significantly more expensive to buy in. ///

Scott Wallis (left) worries ag’s high capital requirements will be a tough hurdle for his son, JR, to overcome.

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Business Editor

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## Farm Kid Trick or Treat

BY Tiffany Dowell Lashmet

Fall is in the air, and that means Halloween is just around the corner. For me, the holiday will forever stir memories of the best farm kid costume ever.

When my son was 2 years old, he wanted to be a tractor for Halloween. We worked so hard collecting boxes and cutting the shapes just so. Then, we hand-painted everything and rigged up straps for the costume to sit just perfectly on his shoulders. It was exhausting, and I swore I would never do a homemade costume again.

The next year, my boy came to me with another farm-related Halloween costume idea. I shuddered to think of all the craftiness and hot glue this one would require. But he threw me for a loop when he said, “I want to be a ‘feed sack ghost’.”



TIFFANY DOWELL LASHMET

I am certain I gave him a confused look at this point, but the trick was on me. He walked over to the pile of empty sheep and cattle feed sacks on the barn floor, grabbed one and instructed me to cut holes for his eyes and mouth.

So, I did just as he requested, he slipped that feed sack over his head, and a feed sack ghost he was. It was a huge hit at the school Halloween party. Everyone wanted to take his picture. People raved about how smart I was for convincing my child to say yes to such an easy costume. The feed company used his photo in marketing their sheep feed.

To this day, every Oct. 31, someone will mention the feed sack ghost and ask me to please post the photo from years ago. I always say that farm kids are the most fun kids, and that has never been truer than that Halloween with my feed sack ghost. ///



Tiffany Dowell Lashmet juggles family, farming, costume design, writing, livestock and a career in ag law from the Texas Panhandle. Follow her blog at [alwaysafarmkid.com](http://alwaysafarmkid.com), on Instagram [alwaysafarmkid](https://www.instagram.com/alwaysafarmkid) and on X [@TiffDowell](https://twitter.com/TiffDowell)

## Fall Brings Beetle Mania

BY Katie Pratt

Harvest promises several things—early mornings, late nights, meals eaten fieldside, breakdowns, chauffeuring, “go-fering” and beetles. With soybeans surrounding the farmstead this year, I mentally prepared for the “beetle battle” early. Asian lady beetles lay siege to the Midwest every spring and fall. They fly from soybean fields at harvest searching for shelter, hibernate through the winter in our homes and emerge when the sun shines each spring.

The multicolored beneficial insect arrived in the United States in 1916 as part of a federal effort to control tree-eating bugs and aphids. Another round was introduced in the mid-’60s, late ’70s and early ’80s, firmly establishing the beetles as part of the North American ecosystem, which does not include any of their naturally occurring predators. Vacuums do not count.

USDA’s Agricultural Research Service acknowledges the unfortunate results of introducing non-native species into a new ecosystem: “It is probable that their introduction into new habitats in the United States freed these lady beetles from some natural population checks and balances that occur within their native Asian range.”

Birds and other insects have yet to include the beetle as a part of their balanced diet. When squashed, the beetles emit a yellow fluid that not only stinks but stains walls, fabrics and siding. Our front door is a popular gathering place in the fall. “Eau de beetle” doesn’t exactly evoke “Welcome to Our Home.”

Despite their numbers, the beetles do not damage structures. In their native ecosystem, they would hibernate in cliff walls. On prairie flatlands, they snuggle into buildings and on warm days emerge to soak up the sun.

I’ve found the vacuum an effective tool against large amounts of beetles. Duct tape picks up smaller, harder-to-reach groupings. My farmer wants to mount a bug zapper in the living room. I appreciate these ladies for their abilities to eat bad bugs but sure wish they would respect boundaries. ///



SCOTT BAUER, USDA-ARS



Katie Pratt writes and battles beetles from a north-central Illinois farm. Find her blog at [theillinoisfarmgirl.com](http://theillinoisfarmgirl.com)



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*Growers receive payments for putting farmland into permanent easements. Be sure you understand all the ramifications.*

# GET PAID To Protect the Farm

**P**at Zeeb has become accustomed to the traffic noise from nearby Interstate 69 and U.S. Hwy 127, but complains the headlights are annoying during planting and harvest. As a seventh-generation farmer, the Zeeb family has been farming here in central Michigan since 1836. “My dad, Robert, and his father

built the farm into what it is today, a 50/50 corn and soybean rotation,” Zeeb proudly says.

Zeeb Farms consists of nearly 1,000 acres and is located between the two major thoroughfares in



Pat and Jill Zeeb, with daughter Andrea Polverento, took steps for future generations to farm their land.

sight of the state capitol dome in Lansing. As urban sprawl continued to expand its footprint toward his operation, Zeeb could see potential future problems for the farm and his desire to remain in agriculture. He began looking

for ways to protect their land from development.

His solution was selling “purchased agricultural conservation easements” to conservation arms of public-funded government entities. The so-called PACE (Purchase of Agricultural Conservation Easement) programs and their easements use government and

foundation/trust funding in the name of farmland preservation and are becoming increasingly popular tools for families wanting to lock in assurance their land remains in agriculture.

## > PAVING OVER FARMLAND

From 2001 to 2016, American Farmland Trust (AFT) estimates 11 million acres of farm and ranch land were paved over, converted out of agriculture or fragmented by real estate development. Of that land, the nonprofit group working for farmland preservation says nearly 4.5 million acres were classified as “nationally significant”—the best land for food and crop production.

To counter the seemingly endless appetite for farmland by developers and infrastructure planners, AFT recently released its “Farms Under Threat: The State of the States” report, which tallied the acreage losses to development and offered ways to protect lands likely to be converted in the future. (Visit [farmland.org/project/farms-under-threat](http://farmland.org/project/farms-under-threat) for more information.)

Announcing the report, AFT president and CEO John Piotti said, “The threat to farmland is real, and the report emphasizes the answer to the problem is getting farming right before it’s too late. He says the AFT favors extending crop rotations, the adoption of no-till or conservation tillage, and planting cover crops to improve soil health—thereby improving the value, productivity and resilience of the land.

## > DEVELOPMENT-FREE ZONE

In a 2022 survey, AFT reported state PACE programs in 30 states had invested more than \$5 billion in state funds to acquire nearly 18,500 easements and permanently protect 3.4 million acres by paying property owners to keep their land available for agriculture. The survey showed Delaware, Maryland, Massachusetts, New Jersey and Pennsylvania led the nation in easements acquired, while California, Colorado, Maryland, New Jersey and Pennsylvania led in acres protected.



Additional partners in the programs include local governments, USDA Natural Resources Conservation Service and other federal agencies and foundations, along with landowners. These entities have spent an added \$3 billion on the projects.

AFT recently announced goals to further protect farmland and deter urban sprawl, primarily from low-density development, through its information and advisory function—educating landowners and encouraging access to public conservation monies along with funds from trusts and foundations.

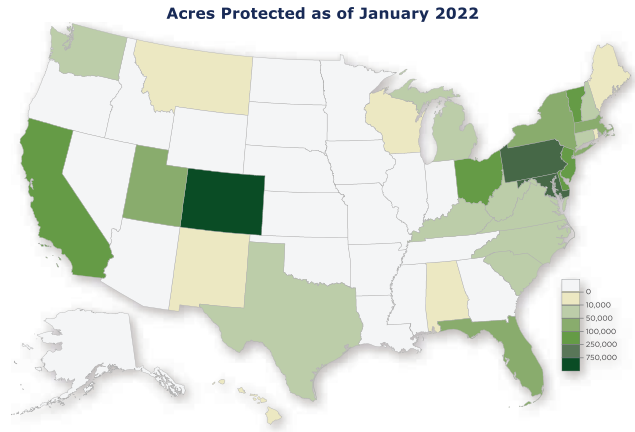
Piotti says the group will act to double the acreage of permanently protected farmland by 2040 and reduce the rate of conversion by 50% by 2030 and by a total of 75% by 2040. To meet those goals, AFT has established the National Agricultural Land Network, a consortium of land trusts and government entities focused on protecting farmland from development.

*Progressive Farmer* spoke to three landowners to learn their reasons for signing permanent easements and to share their experience with the programs.

## Zeeb Farms Lansing, Michigan

Programs such as PACE were not unfamiliar to the Zeeb family. “Both of my parents were in politics,” Pat Zeeb explains, “and were aware of regulations concerning farm easements.”

He says when the original process to enter a PACE program was made available, administrators compared the value of farmland based on agricultural use with an estimate of commercial development value, and a bid price was set from those criteria (a process quite similar to that found in other states even today). If it was suitable to the landowner, the land could enter the program.



American Farmland Trust  
FARMLAND INFORMATION CENTER

(800) 370-4879  
[www.farmlandinfo.org](http://www.farmlandinfo.org)  
@farmlandinfo

USDA United States Department of Agriculture  
Natural Resources Conservation Service

“The first year the program was authorized to purchase the development rights, Dad didn’t make the cut, but the second year he got in,” Zeeb explains. “That protected 700 contiguous acres, which made up the core of our farm.”

Today, Zeeb, with the help of his daughter and sister, farms the land with an eye toward someday receiving a Bicentennial Farm plaque to go with his father’s 150-year Heritage Farm plaque. The operation includes an additional 300 acres of adjoining purchased land in an area not readily convertible to commercial purposes.

The easement assures Zeeb Farms land will remain green, which has not been a problem since Zeeb’s generation shared in the desire for it to remain in agriculture. As in all PACE program easements, the land can be sold, but not for development.

“We get along, and everyone knows how the land is protected,” Zeeb explains. “I’m not overly concerned about my future with the land, but the next generation involves my father’s eight grandchildren, so the transfer and estate planning could become a problem for them. Keeping everyone happy will be a challenge.” ➤



Zeeb Farms took steps to protect its land with a goal to one day receive a Bicentennial Farm plaque.

## Pleasant Lane Farms LLC

Latrobe, Pennsylvania

Jason Frye’s family has been in the dairy business since 1976, when they began leasing land 35 miles southeast of Pittsburgh from golf legend Arnold Palmer. The enterprise remained a traditional dairy until two years before Palmer died in 2016, when he sold the 185 acres to the Frye family with a “gentleman’s agreement” the land would be put in a farmland preservation.

“We knew we wanted to continue operating the farm forever, and a year after the sale closed, 180 acres of the land entered the PACE program, which helped us significantly from a financial standpoint,” Frye explains.



*An ag easement made it possible for Jason Frye to grow his business enterprise.*

“It was always my dad’s (Ralph) vision to see the land preserved for farming ever since he and my mom founded the operation in 1976. Our family has been in the ag business in western Pennsylvania since 1795, and we are the sixth-, seventh- and eighth-generation farmers here.”

The PACE payment allowed the family to pay off the mortgage on the land and use the equity to drive an expansion into a retail creamery fed by a “smart barn” and robotic milking system.

Today, with eyes on consumer markets in the nearby urban Pittsburgh area, Pleasant Lane Farms LLC milks 55 to 65 cows, primarily Holstein with a few Ayrshire, Guernsey and Brown Swiss included for added fat content for cheese production. The current generation of Fryes, including Jason and his wife, Dorothy, brother Todd Frye and lifelong friend Craig Deuel are principals in the operation, along with the help of extended family and continued guidance of their parents, Ann and Ralph.

“Before the expansion, we were maintaining a herd average of about 65 pounds production milking twice a day in the tie-in stalls,” Jason Frye explains. “At the last good look at our numbers, the rolling herd 14-day average is now 86 pounds per cow on 3.3 milkings per day.”

Jason Frye, who is the head cheesemaker and in charge of the creamery operation, says Todd Frye tends to herd management and milking.

“We’re working with nutritionists and veterinarians to keep our herd in top shape and develop the right mix of milk for our creamery business,” he explains. “We also crop an additional 180 to 200 acres in support of the dairy.”

Jason Frye says the farm is “landlocked” with a golf course on one side, Pittsburgh coming from the other direction and an airport a nearby neighbor. “There’s little available farmland in our area we could have purchased to expand to accommodate our family’s desire to remain on the land as farmers.”

Also, by designating the land as “agricultural use only,” the property continues being taxed at a traditionally lower category use rate than surrounding lands subject to commercial development.

“Without the ag easement, the upgrades and the new business model would have never been possible,” he says.

## Seidel Maple Lawn Farm LLC

Greenwich, Ohio

Rob Seidel says watching his parents’ financial struggles to maintain their Huron County farm during the 1980s was the driving force for his family to pursue placing more than 350 acres in a permanent agricultural easement with the Ohio Department of Agriculture.

He says protecting the land from development through the PACE program was a key ingredient in planning the 2005 partnership now made up of himself, his two sisters and a brother.

“All of us were involved in that decision, and we’ve also placed two additional protection

agreements (not financial) with the Western Reserve Land Conservancy to improve land stewardship and natural resource conservation. >

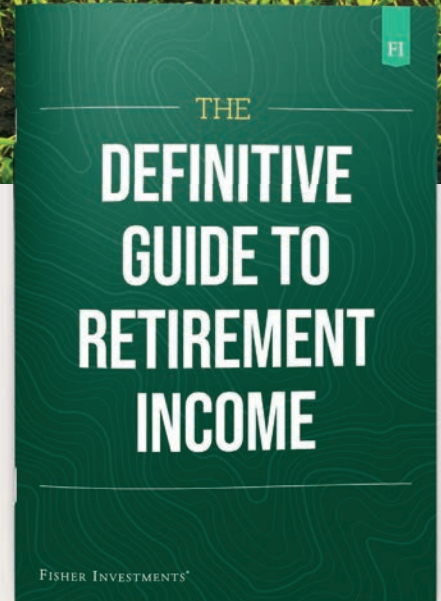
*Seidel Maple Lawn Farm used the PACE program to protect land from development.*





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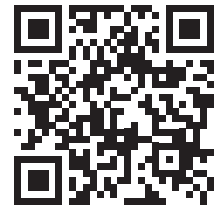
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“I’m old enough to remember what Mom and Dad went through the in the ’80s to save this farm, so our planning is aimed at protecting it for future generations,” Seidel explains. “I have four boys interested in continuing in agriculture and two granddaughters also interested in preserving it.”

The no-till corn/soybean farm consists of 1,500 acres that are also home to two broiler barns, an 80-head cow/calf and feedlot operation, and wheat and hay production. The family is involved in the H2Ohio program, which includes the use of cover crops and manure utilization each fall to protect the soil and reduce runoff into the nearby Vermilion River, which drains into Lake Erie.

Seidel says the financial benefits of the PACE program easements allowed the family to build the broiler barns and add additional acres to their operation.

### > A CAVEAT OF PERMANENCE

The three farmers are quick to agree the agricultural conservation easements have been positive arrangements for their families. Still, they point out as families grow and disperse, “permanent” easements can present challenges of transfer.

Zeeb sees it coming with numerous grandchildren and the likelihood some individuals may not be interested in the farm yet share in it as heirs.

Frye explains it this way: “The first generation does it. The second generation is aware of the arrangement. And, the third will have forgotten why the easement was sold, and it is constrained by contracts that keep the land in agriculture.”

Seidel says diligent planning and familiarity with all regulations of the easement are necessary when selling developmental rights.

“For instance, if you have several children, many of these agreements limit only one house lot per easement,” he explains. “In that case, you may want to maintain some land outside the easement to provide for family member homes in the future.”

All three agree PACE program easements need to be studied carefully to ensure they meet the present and future needs of landowners considering such arrangements. ///

*Visit [farmlandinfo.org](http://farmlandinfo.org) for more information on the PACE Program and the states involved.*

## A PACE PRIMER

The American Farmland Trust offers these explanations of PACE programs highlights:

### WHAT ARE PACE PROGRAMS?

Purchase of Agricultural Conservation Easement programs compensate property owners for keeping their land available for agriculture. Typically, these programs consider soil quality, threat of development and future agricultural viability when selecting farms for protection. Such programs are usually administered by state or local governments, but also may be operated by private conservation organizations.

### RIGHTS AND RESTRICTIONS

Agricultural Conservation Easements (ACEs) are deed restrictions that prohibit activities that could interfere with farming but may require a conservation plan. Landowners retain all other rights, including the right to limit public access, sell, rent or bequeath the land. Easements remain with the land, binding all future owners.

### COMPENSATION

Programs generally pay landowners the difference between the value of the land as restricted and the value of the land for its “highest and best use,” which could be residential or commercial development. The easement price is determined by appraisals or a local easement valuation point system.

### TAX CONSIDERATIONS

An easement is a capital asset—property expected to increase in value over time. The sale of an easement may be subject to federal and state capital gains taxes. Landowners have used the like-kind exchange provision in the federal tax code to defer capital gains taxes, applying proceeds from the sale of an easement to acquire additional land.

Landowners who sell ACEs for less than their appraised value may qualify for tax incentives and can deduct the value of donations that meet IRS Code section 170(h) criteria up to 50% of their adjusted gross income in the year of the gift. Donors can apply excess easement donation value

toward federal income taxes for the next 15 years, subject to percentage limitations.

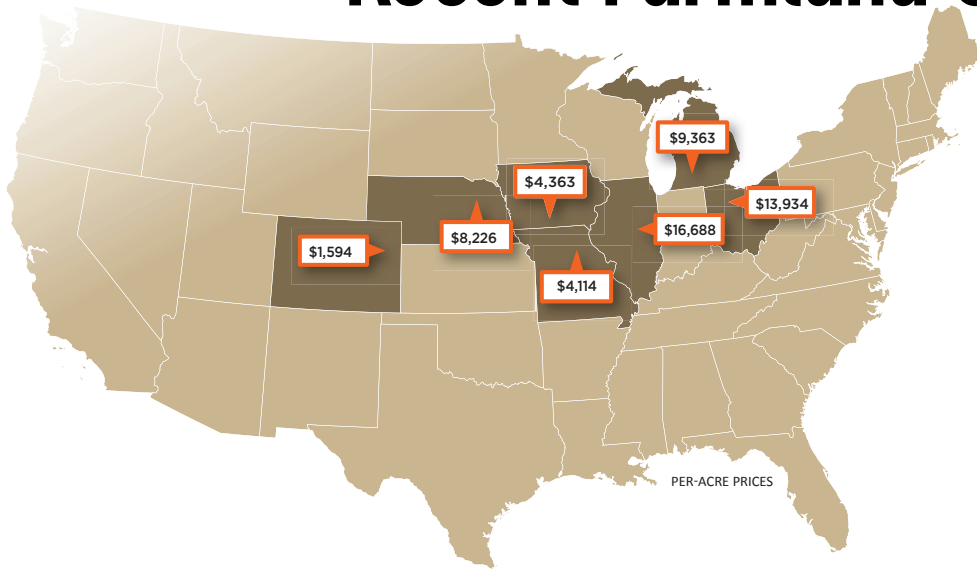
In addition to the federal income tax incentives for donors, most states’ income tax laws also provide for a charitable deduction of conservation easements. To the extent the restricted value of farmland is lower than fair market value, the estate will be subject to a lower tax. In some cases, an easement can reduce the value of an estate below the level that is taxable, effectively eliminating any estate tax liability.

### OVERALL PACE EFFECTS

- > PACE provides landowners with liquid capital (access to equity) that can enhance economic viability through debt reduction, expansion or modernization, settling estates or investing for retirement.
- > PACE gives communities a way to share the costs of protecting farmland with landowners. Non-farmers have a stake in agriculture because of their local access to food production, as well as maintenance of scenic and historic landscapes, watersheds and wildlife habitat.



# Recent Farmland Sales



## COLORADO, Kit Carson County.

A 1,280-acre farm with a wind turbine sold for \$2.04 million, or \$1,594 per acre. It was divided into four parcels around 320 acres in size. Three parcels are currently in winter wheat production, while one is in buffalograss, although it could be converted to crops or fenced as pasture. **Contact:** Gail Harvey, Farm and Ranch Realty Inc.; fr@frmail.com, 719-688-5308 [www.frmail.com](http://www.frmail.com)

**ILLINOIS, Champaign County.** Two contiguous 80-acre fields brought \$2.67 million at auction in August, an average of \$16,688 per acre. The pattern-tiled farms boast productivity indexes of 139.7 and 141.2. The first tract sold for \$17,400 per acre, while the second sold for \$16,000. **Contact:** Elizabeth Strom, Murray Wise Associates LLC; liz@mwallc.com, 800-607-6888 [murraywiseassociates.com](http://murraywiseassociates.com)

**IOWA, Clarke County.** Four tracts of pasture and recreational timber totaling 573 acres sold at hybrid auction for just shy of \$2.5 million, or \$4,363 per acre. The four contiguous parcels varied in size from 278 acres to 40 acres, all containing a mix of timber and pasture, as well as several

streams and ponds. The smallest tract produces hay and includes a corral. The largest tract has a 40- x 80-foot open-front building. Deer and turkey hunting is excellent across the property. **Contact:** Mark Gannon, Gannon Real Estate and Consulting; info@gannonre.com, 515-291-5942 [www.gannonre.com](http://www.gannonre.com)

**MICHIGAN, Branch County.** A 251-acre farm with tillable farmland, hayfields, two homes and recreational land sold for \$2.35 million, or \$9,363 per acre. The first three tracts, which include one of the homes and most of the hayfields, sold for an average of \$8,724 per acre. The fourth tract, which is land-locked without road access, sold for \$7,697 per acre. The fifth and sixth tracts include a home and 73 acres of tillable farmland, mature timber and marshland. It sold for \$11,818 per acre. **Contact:** Kevin Jordan, Schrader Real Estate and Auction Co.; auctions@schraderauction.com, 800-451-2709 [www.schraderauction.com](http://www.schraderauction.com)

**MISSOURI, Sullivan County.** Smithfield sold a 1,371-acre property at auction in early August for \$5.64 million, or an average of \$4,114 per acre. The farm contains 653 tillable acres, all planted to soybeans in 2024, as well as cattle

pastures and timber draws. It includes a 27-acre lake, multiple ponds and three lagoons that are being converted into freshwater ponds. Cropland on seven tracts will benefit from a nutrient spread agreement while the lagoons transition. The previous containment buildings have been removed, but concrete pads remain. The property sold in 10 tracts to three groups: a husband and wife, a partnership and an assortment of Amish buyers, some local and some from Wisconsin. **Contact:** Jeff Propst, Whitetail Properties Real Estate; jeff.propst@whitetailproperties.com, 217-285-9000 [www.whitetailproperties.com](http://www.whitetailproperties.com)

**NEBRASKA, Madison and Platte Counties.** Three dryland tracts containing 310 acres sold in an online auction for \$2.55 million, or \$8,226 per acre. The first tract, at 154 acres, in Platte County sold for \$8,750. The second tract was 82.5 acres, equally split between crop and hay production. At 73 acres, the third tract, in Madison County, is the smallest but commanded the highest per-acre price at \$9,200 per acre. **Contact:** Jim Stock, Big Iron Realty; contact@bigironrealty.com, 402-920-0604 [www.bigiron.com](http://www.bigiron.com)

**OHIO, Paulding County.** A 61-acre farm sold for \$850,000 at hybrid auction for an average of \$13,934 per acre. The level, tillable farm is mostly Hoytville Silty Clay. **Contact:** Jerry Ehle, Schrader Real Estate and Auction Co.; auctions@schraderauction.com, 866-340-0445 [www.schraderauction.com](http://www.schraderauction.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](mailto:landwatch@dtm.com)

Find previous Landwatch listings at [www.dtnpf.com/agriculture/web/ag/magazine/your-land](http://www.dtnpf.com/agriculture/web/ag/magazine/your-land)





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# Up, Up And Away

*Spraying drones have grown from novelty to necessity for some farmers.*

➤ Story and Photos By **Joel Reichenberger**, @JReichPF

**T**ravis Couch has bought so deeply into his small, young, aerial drone spraying business that he sold the family dairy cows. But, 2024 was not a great summer for a start-up spraying business, and that was before Couch spent one sweltering Monday afternoon in late July utterly grounded.

The owner of, pilot for and funding behind Stone Valley Drones had spent part of his Sunday prepping to make sure his Rantizo-sourced DJI Agras T30 would be able to fly and spray everywhere he needed it to the following day.

Nevertheless, halfway through a fungicide job he'd taken up for an old friend in Butler County, Pennsylvania, he ran into trouble.

Most of Couch's short career as an aerial drone operator had been going well. He started the company a year prior, in 2023, to supplement the family's 100-cow dairy. His calendar filled almost immediately, as the sprayer drone offered a much-desired service in an area short on more traditional aerial applicators. But, sub-\$4 corn has a way of knocking down producers' willingness to invest in their crop, and while the summer of 2024 was still busy enough, it was a rough lesson for a still-new company.

And, to compound the season's frustrations, it was a Monday afternoon, and Stone Valley Drones' only drone would not launch, barred from doing so by a



Jeff Ansell (left) helps set up Travis Couch and his DJI Agras T30 (above) to spray corn in western Pennsylvania.

digital geofence around a nearby airport. Couch had sought clearance the day before, again that afternoon and yet again after he was given permission to spray the field he needed to but not to lift off from the stubble next door, where he waited.

In a way, it summed up much of the rush of aerial drones in farming: swiftly maturing technology that's becoming critical to some farmers, tremendous potential that's in some cases barely being scratched and a mess of red tape and regulations that are slowly getting sorted out.





## > HIGH ABOVE

For many farmers, the use of aerial drones has gone from fantasy to novelty to, in certain cases, necessity, and it has happened fast.

“When we started, everyone thought this wasn’t going to last, that it was a fad,” says Ryan Schroeder, who in Iowa helped start Terraplex AG, a drone service and sales operation. “We see more farmers who were just watching decide to dip their toe in and get some custom work done, and that’s translating into owning their own drone.”

Terraplex was founded just four years ago in Odebolt, Iowa. Now, it has expanded to five locations, three more in Iowa and one in South Dakota, while establishing affiliate partnerships with dealers in five other states.

“As drones evolve, it will get to the point where every farmer will own one or have access to one,” Schroeder says.

That line between “own one” and “access one” is shifting, too, from farmers to companies.

The applicator and drone pilot licenses required to operate and spray with the machines take time to obtain, and there’s no shortage of expenses, from the cost of the drone itself (starting at roughly \$30,000 and going way, way up) to the money needed to outfit a trailer or pickup to tend to the sprayer in the field.

“The biggest shift we’re seeing is these agribusinesses starting up, and they’re dedicated to drone spraying,” says Arthur Erickson, CEO of Hylio, a Texas ag drone developer. “The early adopters were the farmers themselves, producers who were fed up with a lack of >



access to decent, reliable, on-time sprayers, and it made sense for them to have a drone. Now, this infrastructure is building up, and you have these middlemen.”

There have been new entries into the industry, such as Terraplex, but longtime players in ag equipment have also pivoted. Apple Farm Service, based in Covington, Ohio, is a Case IH dealer that’s been in business for more than 70 years. Last year, it birthed a new department and started servicing and selling Hylío drones.

It’s proven to be a different kind of challenge.

“It’s a large learning curve,” company vice president Matt Apple says. “It’s not like a tractor or a combine where you just turn the keys and go. These are very specialized machines. They’re not toys, and the guys who treat them like toys don’t last very long.”

The company does offer training with a sale, and locals are catching on. Apple says sales in 2024 were four times that of 2023, helping bring aerial spraying drones alongside more traditional ag equipment as staples on (or over) the modern farm.

## > FLYING FORWARD

Just how capable drones will get, and how quickly, depends on who you ask and where they’re located.

The drones themselves have been growing rapidly. Couch’s DJI Agras T30 was introduced in the United States in 2021 and has now been replaced twice, with another model looming.

The top offering from Hylío now is the AG-272, with an 18-gallon spray tank and a promise of up to 50 acres an hour deploying 2 gallons per acre.

Guardian Ag, a Massachusetts-based drone developer, is readying its massive SC1 drone, which has a 20-gallon capacity, for sale.

Wilbur-Ellis partnered with Guardian in 2022 in a multimillion-dollar deal and plans to begin using the SC1 over fields in California’s Salinas Valley this fall.

“We expect great things from it,” says John Watson, unmanned aircraft systems product manager at Wilbur-Ellis. “It gives us a big advantage, not only in the capacity of the tank but in its ability to output it.”

The Guardian drone won’t come with batteries meant to be swapped with every pass like some of its competitors. Instead, it’ll connect with a supercharger for a quick fill-up.

The automation of processes like recharging the battery and refilling the spray tanks is one of several key developments that could soon push the efficiency of aerial drones to a new level. Another is swarming, so that one operator can launch and maintain several machines at the same time, quickly increasing effectiveness and making a drone operator more competitive with traditional wheeled sprayers or airplane or helicopter applicators.

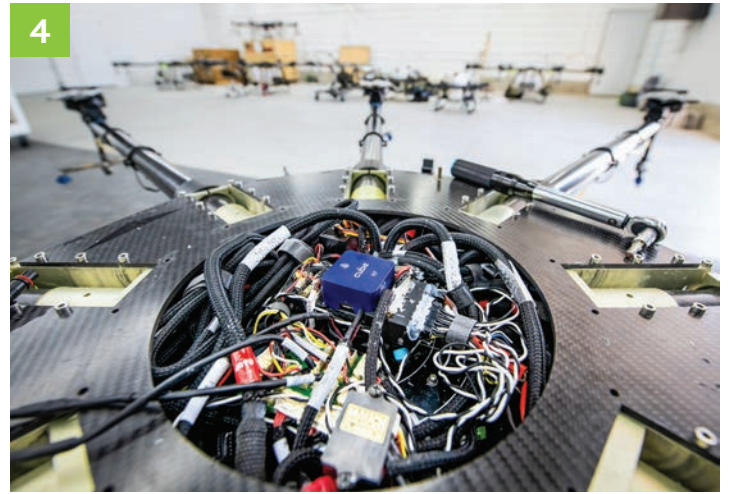
Especially in regard to swarming, there are many licensing hurdles to overcome, but companies are starting to surmount them with the Federal Aviation Administration.

At the same time, development is ongoing for aerial drones that could change the game in their own way. The Pyka Pelican is an autonomous airplane that’s been extensively used in Central America and is making its way into the United States. Rotor, meanwhile, is a company focused on turning full-sized helicopters into autonomous drones. It

Travis Couch outfitted his pickup truck with water and chemical tanks, as well as a generator to charge drone batteries.







boasts a 110-gallon capacity and a 240-acre-per-hour capability.

## > INTO THE WILD BLUE

Couch isn't eager to remotely pilot a whole helicopter. He was long a producer with his feet firmly in the dirt before he became a retailer offering farmers a service above it. He grew up just as his father and grandfather, working their Huntingdon, Pennsylvania, dairy. But, Couch had his eyes open for other opportunities.

After months of research, he decided that was aerial drone application. In Rantizo, he found a company to offer him support, from setting him up with the machine to helping line up the required tests and licenses. It was Rantizo he called on that hot Monday afternoon when the airport geofence was slowing things down.

In the summer of 2023, his first operating a drone, he sprayed herbicides, insecticides and fungicides, and spread cover crop seed. He even took one job spraying invasive weeds in a forest, an anxiety-inducing challenge that had his drone bobbing and weaving through tree trunks.

1. *Travis Couch and Jim Byler haul the DJI Agras T30 drone.*

2. *Batteries are constantly swapped and recharged.*

3. *Brad Baker (left) and Marcus Apple work to repair a Hylilio drone.*

4. *Apple Farm Service, in Covington, Ohio, started selling Hylilio drones last year.*

He sprayed so much that what he initially intended as a supplement enterprise to the dairy would instead overtake it. He sold the cows in the spring to put his whole focus on aerial spraying.

"I didn't have the help at home to run the dairy and do the drone spraying at the same time," he says. "It was time for a change anyway, and I decided to make the jump."

In western Pennsylvania, Couch found one of those agricultural niches often overlooked before aerial drones. Jeff Ansell, a Nutrien crop consultant and one of Couch's clients, says urban density and tight, tree-lined fields have kept airplane and helicopter applicators at bay, so late-season applications were never an option for the fields he managed.

"We've known for a long time the benefits of flying fungicides and nutritional and insecticides over this crop late whenever it's in tassel," he says. "We haven't been able to do it until we got the drones."

Ansell recalls calling Couch to talk about a cow only to learn his old friend had taken up a new side job. Days later, Couch was in Ansell's fields.

"As a grower and a retailer, this is the future," he says. ///



# Weed Species Shifts Complicate Control Strategies

Resicore® REV herbicide provides added application flexibility to control herbicide-resistant waterhemp and Palmer amaranth.

In Brad Burkhart's 16 years with Corteva Agriscience, he's seen numerous weed shifts in corn fields, resulting in tougher weed control for farmers. That's largely due to the development of herbicide-resistant weeds, caused by the over-reliance on certain chemistries.

"Right or wrong, we kind of abused the system we had because it was easy," points out the market development specialist for Corteva. "We abandoned some of the multiple modes of action principles my grandpa or uncle would've done in the eighties and nineties. What we've learned is we must go back to the basics."



Brad Burkhart

As a result, farmers face a more challenging weed spectrum. "In the last three years, especially in my area of Indiana and eastern Illinois, waterhemp is the most prevalent, tough-to-control weed we're facing now," says Burkhart.

"Further south in Illinois into Kentucky, Missouri and the Delta region, it's Palmer amaranth."

## CHANGING WEED SPECTRUM

Five years ago, Burkhart says they were fighting marehail, giant ragweed and cocklebur in some places. But lately, especially this year, with all the rain in the eastern Corn Belt, waterhemp has been surging.

Another weed shift pattern that has occurred is earlier waterhemp germination. Traditionally, it was mid-May before waterhemp began emerging. This season, Burkhart saw initial flushes by April 22 in southeast Indiana during an early spring.

From a farmer's perspective, if a burndown herbicide combined with good residual control isn't used, the potential for a waterhemp disaster always exists.

"At our August plot days across Indiana, we showcased Corteva and competitor technology to help farmers understand various weed control plans



With resistance to multiple herbicides, Palmer amaranth (above) and waterhemp (right) are shifty weeds to control.



to combat herbicide-resistant waterhemp," Burkhart says. "When you've got waterhemp populations that are five-way resistant to PPO, glyphosate, atrazine and more, farmers tell you they've got to find a better plan."

That plan includes a layered residual approach using a burndown or preplant application with residual control followed by an in-crop application with residual. Burkhart says that message is really starting to resonate this year.

## NEW FORMULATION PROVIDES FLEXIBILITY

Flexibility in a weed control program is critical when seeking a better plan to prevent patches of herbicide-resistant waterhemp or Palmer amaranth from taking over fields.

Thanks to a new Corteva formulation of popular Resicore herbicide, called Resicore® REV herbicide, growers will have dramatically increased application flexibility timing from burndown to preplant to in-crop application on corn up to 24 inches tall. With three proven modes of action (clopyralid, mesotrione and acetochlor), farmers can achieve contact and residual control of more than 75 tough broadleaf and grass weeds in conventional, reduced and no-till cropping systems.

"This new corn herbicide we developed gives farmers an excellent option to control difficult waterhemp and Palmer amaranth using the same three modes of action





in regular Resicore herbicide,” says Burkhart. “We’ve improved Resicore REV herbicide by encapsulating acetochlor with a safener for less crop response to deliver healthier corn and higher yield potential.”

Also improved is tank-mix compatibility with micronutrients, including UAN and ammonium thiosulfate (ATS). “This improvement gives growers the added tank-mix tools they seek for a burndown application, providing flexibility and compatibility that is second to none,” Burkhart says.

## SPLIT APPLICATION ADVANTAGES

In field trials over the last three corn seasons, Burkhart says they’ve seen the best control of difficult weeds by using split applications. Start with a burndown or preplant application of multiple modes of action with up to eight weeks of residual control. Follow that with an in-crop spray on four- to six-inch weeds and provide another layered residual.

Burkhart recommends adding a calendar note to track when your initial residual weed control application will diminish, usually six to eight weeks after application. He advises doing this instead of simply watching and waiting for another weed flush before spraying. That’s because, eventually, a weather event happens, and applications are delayed.

“I’ve said for years that the best waterhemp control you can achieve is controlling the waterhemp you never see,” Burkhart adds. “Once it starts emerging and you get behind the eight ball with rain delays followed by heat and humidity that causes it to grow one to two inches per day, the challenges are magnified.”

Fortunately, Resicore REV herbicide is a better tool for helping farmers reduce this waterhemp and Palmer amaranth weed shift, keeping other tough weeds like marehail, giant ragweed and morningglory from joining the shift.

“Unfortunately, we’re going to be battling this waterhemp and Palmer weed shift for the next three to

five years,” Burkhart says. “We’re always trying to innovate and deliver better tools that fit growers’ weed management practices. Growers and retailers who used Resicore REV herbicide this year are happy with the fit and flexibility, so look for more product availability in 2025.”

For more details about Resicore REV herbicide, talk to your local retailer or Corteva representative. For immediate product information, technical bulletin, product label and a mixing and handling guide, visit the Resicore REV website at <https://www.corteva.us/ResicoreREV>

Be sure to read and follow label directions.

**Resicore REV herbicide provides corn farmers a wide application window—from burndown to preplant to in-crop.**



**Resicore<sup>®</sup> REV**  
**HERBICIDE**

# FULL THROTTLE WEED CONTROL WITH RESICORE<sup>®</sup> REV HERBICIDE

*Fuel up and accelerate  
your weed control program  
at [Corteva.us/StartStrong](https://Corteva.us/StartStrong).*







In the race to clean fields, take the lead with **Resicore® REV** herbicide. From the first pass, this high-performance formulation outpaces broadleaves and grasses like Palmer amaranth, giant ragweed and waterhemp. With the ultimate tank-mix flexibility, it'll have your weed control program firing on all cylinders.

**Resicore® REV**

**HERBICIDE**



# “Could Not Be Better”

Outside Hazelton, Idaho, near the Snake River and the Utah line, Russell Patterson put up a shop. Not a small shop. At 12,500 square feet, it’s a farming space that does not fail to live up to any of his expectations. That’s what Patterson says. “We are so happy with it,” he says of the shop built in 2014. “If you were to ask me if there

is something to change, I would tell you no, there isn’t.” Patterson and his wife, Lisa, farm in the south-central part of the state. It’s an agricultural epicenter blessed by the waters of the Snake River, Union Pacific railroad and four lanes of Interstate 84 from Portland, Oregon, down to Ogden, Utah, and its intersection with Interstate 80, one of the nation’s main arteries of commerce. The Snake and deep waters of the Snake River Plain Aquifer irrigate



Four-foot wide service doors provide extra room for Russell Patterson and others to pass through.

3 million acres of land growing potatoes and sugar beets, barley (Idaho is the largest producer of barley in the U.S.), corn, winter wheat, alfalfa, other small grains and dry, edible beans. The county is home to large dairies of a scale that has made Idaho the nation’s No. 3 producer of milk.

Patterson’s shop supports the machinery he and one tenant deploy to produce potatoes, sugar beets, alfalfa and barley. It has work-flexible spaces, a traffic-friendly site plan and ample supporting infrastructure—three keys to a well-functioning and modern shop.

Plans for the Patterson shop took shape with the aid of scouting trips to other shops. “We were looking for great ideas, and in short, we pickpocketed all the best ideas,” he says.

The result was a nearly square building, 100 x 125 feet, with an interior wash bay. Outside the shop, the building’s footprint includes a 35- x 150-foot lean-to. Along the exterior of the back wall is a 50- x 125-foot, three-sided storage maintenance space (with an open face). The outside spaces are highly useful maintenance areas but at substantially less cost per square foot than the main building.

“The square design is purposely functional. It is easy space to move equipment around,” Patterson says. A 16- x 42-foot-wide Schweiss bifold door, along with two additional overhead doors, gives the shop an ideal traffic pattern (the ability to move equipment through it without having to move equipment torn down for repair). “I thought we

Russell Patterson’s shop is 100 x 125 feet, plus a 35- x 150-foot lean-to, with covered storage space in the back (above right). Patterson washes his semis in a wash bay heated in the winter (upper far right).



## Russell Patterson wouldn’t change one thing in his 12,500-square-foot shop.





would rarely use [the bifold door], but it turned out to be one of the best things we did. We use it all the time.”

Here are the three design elements of note, each key to Patterson’s shop.

## Workspace

At 12,500 square feet of covered and conditioned space, plus nearly as much additional covered space outside, the shop spaces offer great flexibility in servicing and maintaining equipment.

► The shop’s concrete floor is finished with a hardened enamel compound that makes for quick cleanups and is resistant to stains and the friction created by heavy wheel traffic.

► An inside wash bay is the result of a keen eye for design. The question, Patterson says, was how to build a wash area to accommodate his largest pieces of equipment—semitrucks with large potato trailers, for example—without taking up a large chunk of the shop

for space that would be used intermittently. He solved the challenge this way. Space dedicated to the wash bay is 40 x 50 feet, or 2,000 square feet. “But, with a lot of our equipment, that is not quite big enough,” Patterson says. “So, we put a 16- x 30-foot overhead door in the back of the wash bay. With that door open, we can pull the bigger machinery all the way into the shop and close the outside door.” With that back door open, the wash bay temporarily extends back another 50 feet into the shop’s interior. It is smart, flexible use of space, while the bay also gives Patterson’s crew another warm, enclosed maintenance space in winter to wash, paint and detail equipment.

► Access to the shop is by way of the bifold door (with a row of three large windows for light and a view to the outside). There is also a pair of 16 x 30 overhead doors, with two rows of glass inserts each, that open to the front and onto a large outside lot. One overhead opens to the main shop area. The second provides access to the wash bay.

► An interesting feature is the shop’s steel service, or man doors. They are 4 feet wide, 12 inches wider than a typical service door. “The wide [service] doors give you plenty of area to pass things through,” Patterson says.

► Patterson’s shop is well-insulated—R-40 in the ceiling and R-20 on the sides. “Sometimes insulation is the cheaper part of your shop when you go to pay your heating and fuel,” Patterson says. On hot days, the shop is generally 15° to 20°F cooler than outside. On winter days, the opposite is true. It’s 15° to 20°F warmer inside. The shop consumes about 1,000 gallons of propane during the winter, firing radiant heaters heating the shop in three zones.

► It’s impossible to miss the 24-foot-wide overhead Rite-Hite Fan centered over the main shop area. It circulates a crazy amount of air. “It is one of the most spectacular pieces of the shop,” Patterson says. “When we put it on high speed, it sounds like a Huey helicopter taking off.” He does not lie.

► A steel, red, powder-coated staircase rises up to a well-sized and modern office. The office floor is hickory. A large desk of knotty alder was built locally, ►



Watch the Video



<https://tinyurl.com/5dxke9ax>  
DTN





and it has a rounded front overhang that gives guests room to work with the Pattersons at the same desk. Directly outside the shop is a small break area with kitchen appliances—space for a meal or meetings. An interesting idea about that office: As workers were about to cut a hole through the side of the building for a heating and air-conditioning unit, Patterson had a thought. Why punch a hole through the side of a new building? Instead, he had the heating and air-conditioning unit installed into the wall facing the

inside of the shop. Because it's inside the shop, the unit is more operationally efficient to heat and cool the office.

## Site Plan

This building site is the center of support for the Patterson operation. It has well-designed vehicle lanes that allow the wide turns of big equipment and trucks, and logistics support facilities—fuel tanks, for example—to fuel and keep operations moving.

► Patterson put his large shop down into an area that includes a 112,000-gallon fuel storage area on one side and a steel, ribbed Quonset-style potato shed on the other. Traffic maneuvers with ease around those structures, flat storage areas and the shop—much of it on concrete. For example, the area between the fuel storage facility and shop includes a concrete pad that's 50 x 120 feet.

► Outside the front of the shop is a large, 50- x 200-foot concrete pad that wraps around and under the lean-to for another 85 feet. Patterson uses that area as another wash pad in addition to providing another covered maintenance area. Beyond the concrete is an even larger, 200- x 200-foot service area with a crushed stone surface. The yard runs out onto County South Road.







## >>> Infrastructure

Walls define a shop's sheltered spaces. But, it's the infrastructure that makes it work.

► Patterson chose LEDs to light the inside spaces, as well as the lean-to and three-sided storage maintenance spaces outside. The LEDs are efficient, have a long life and put a clean, white light on workspaces (plus Idaho Power provided an incentive).

► The Patterson shop is well-powered. The entire shop is wired with 240-volt, three-phase, 220, single-phase and 110-volt service. The outside covered ►

*Patterson's shop has radiant heat, a large overhead fan to move cool and warm air, a large compressor and LED lights. Stairs lead up to an office (photos facing page).*



# NOTICE OF ANNUAL MEETING OF STOCKHOLDER-MEMBERS OF SOUTHERN STATES COOPERATIVE, INCORPORATED

## TO: The Stockholder-Members of Southern States Cooperative, Incorporated

The Annual Meeting of the Stockholder-Members of **SOUTHERN STATES COOPERATIVE, INCORPORATED**, will be held at 6606 West Broad Street, Richmond, VA 23230 on November 6, 2024, beginning at 10:00 A.M. Eastern Standard Time, to hear reports from the Board of Directors and Management and to transact such other business as may come before the meeting, or any adjournment or adjournments thereof.

By Order of the Board of Directors

*Charles W. Payne, Jr., Secretary*



A Farmer Owned Cooperative Since 1923.

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# TO MEMBERS AND PATRONS OF SOUTHERN STATES COOPERATIVE, INC.

The Bylaws of Southern States Cooperative, Inc. (the "Cooperative") require that Members and Patrons maintain a valid mailing address with the Cooperative at all times. The list below includes the identifying information available in the Cooperative's records with respect to accounts in the Cooperative for which valid mailing addresses are not available. If your name or account identification appears in the list below or if you have additional information and documentation that would prove the ownership of an account identified below, please contact the Cooperative by email at patronage@sscoop.com or by mail at Attn: Stock Records (6606 West Broad Street, Richmond, VA 23230), to provide the current address for the account. Failure to do so within 180 days of this notice will result in a Member's or Patron's equities and other interest being forfeited to the Cooperative pursuant to Article XIV, Section 5 of the Bylaws.

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			WILMA MCCUUSTON		STEVEN KEITH DIXON	CONTRACTORS
<b>KENTUCKY</b>					THE ARUNDEL CORP	(continued)



spaces have outlets for power tools, engine heaters and the like.

► A transformer supplies Patterson's bigger power needs. "We have a lot of machinery that runs off 480 [volts]. So, instead of making one more run [of wire] for 480, we have a transformer on wheels. We plug it into our 220, three-phase, and it steps up [the power] to 480, three-phase for the places we need it."

► Compressed air runs around the shop in a loop. "That way you don't have any dead ends," Patterson says. "Any air tool always has plenty of pressure." Every compressed air connection has both ¼-inch and ½-inch couplers to accommodate air tools of various sizes. Drains remove any water that accumulates.

► The shop encloses a decently sized tools and parts storage area. It's secured by a locked, 6- x 8-foot overhead door. The opening is plenty large to receive parts, chemicals and petroleum products by the pallet-load. ///

 Russell and Lisa Patterson



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# Your Pre-Succession Checklist

**Succession is often narrowly framed as the movement of assets like land and equipment to the next generation.** Advisers focus on gifting land or selling equipment to the next generation while avoiding tax consequences, or they limit discussion to the liquidity needed to buy out off-farm siblings. They propose different kinds of trusts, gifting plans, insurance policies and entity structures to minimize taxes and protect assets.

While such planning is important, there is more to it than just the movement of assets. Discussing the following nonfinancial issues can grease the wheels of a successful ownership transition.

**A vision for your life's next chapter.** One factor in a successful transition is the senior generation's focus on its future. Specifically, what happens after you step into a less-prominent farm role? Will you be on the farm or ranch working in an employee capacity to support the younger generation's leadership? Do you have emotionally fulfilling activities away from the farm? Will you live on the farm or in town, and how will you spend your days? Without a vision for what's next, the senior generation risks feeling lost and depressed during and after the transition.

**Your ability to let go.** Closely related to a vision for your future is your psychological ability to let go of daily tasks. If your vocational identity—what you do—is tied up in the daily accomplishment of farm or ranch activities, and you must still instruct, guide or manage daily to feel a sense of accomplishment, it will be difficult for the next generation to be excited about taking over. Most leaders want to feel a sense of autonomy, that they have control over their work. Frustration ensues when the senior generation is not ready to let go and jumps in the middle of the daily to-do list, yet still talks about the importance of succession planning.

**Agreement with your spouse.** An often undiscussed issue is whether Mom and Dad agree on aspects of the handoff. Succession-planning efforts can stall because the parents are not in agreement about the principles of the financial and management transition. Maybe one parent is still highly involved in the business, and the other parent is ready to retire. Or, there is a lack



of agreement about the timing or amounts of financial gifts. When parents don't agree on the basic tenants of a succession plan, it stymies the advisers and stalls the whole transition effort.

**The next generation's skills.** It is hard to admit that your kids do not yet have the skills to manage the business and even harder to acknowledge that your kids may not be the best leaders for the future. If they do have the ability but are not yet ready, work with them to develop a plan to gain knowledge and experience. If a non-family leader is needed, or if you need to brainstorm alternatives to family ownership, start those discussions early, as implementation often takes several years.

**The next generation's relationships.** If the next generation does not work well together, you may be setting the stage for future legal battles by trying to keep the assets tied together, which minimizing taxes often requires. Engage in honest dialogue about how your adult children will own and manage assets together. Through careful planning, you can develop strategies that don't tie the financial fates of your heirs together. But, it requires admitting and planning around the lack of working relationships, which is often difficult for parents to acknowledge.

Planning for the legal and tax aspects of a transition is important, but there are other issues that can help—or harm—your succession and estate plan. Considering them will help set the stage for your successful planning process. ///



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# What's Your Point?

## Electronic Ignition: Should I Make the Change?

*I have a question about changing to an electronic ignition. I have an International 2424 gas tractor. It runs well and has low hours. I don't use it a lot, and when it's not used for a long time, it won't start. After cleaning the points, I have no problem until it's not used for a while. It uses a 6-volt coil but is a 12-volt system. I think it has some sort of wire resistor that goes between the resistor and the coil. Do you think it's worth the money to convert to the electronic ignition?*

**Steve:** Conventional systems with points (see photo, right) don't seem to last as long as they once did for sure. I believe the material used has changed, and the points want to oxidize, losing contact. Most farmers have enjoyed the change from conventional points and condenser to the electronic ignition (see photo, left), which eliminates a lot of problems.



However, the most common complaint I hear about changing to electronic is that the tractor is hard to start or will not start. But, this problem is usually caused from not buying the suggested coil that is usually available with the electronic system. The recommended coil puts out many more volts, and it usually is an internal resistance coil, which eliminates a resistor between the switch and coil. I think the switch to electronic would be great for you, but be sure and buy the suggested coil available for the electronic ignition kit.

## Blowby and Blowdown in an Engine

*I've been around engines and liked to race cars in high school and even built a few engines. I've often heard the terms blowby and blowdown that are related to an engine. I don't know if these are terms to help us know when an engine is going bad or if these engine terms mean something that is supposed to happen in an engine. Can you explain these words in a way that they are easy to understand?*

**Steve:** Both of these terms are things that are going on in an internal combustion engine while it's running. But, blowby and blowdown are completely different things happening as the engine runs.

Blowby is compression that escapes by the rings when the explosion occurs during the power stroke, and the combustion is forcing the piston down to move the crankshaft. Some blowby is normal; it's burned gas that is mainly free of oxygen. But, when



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Please include your contact information and phone number.

blowby gets excessive, it's time for an engine overhaul. In older engines, blowby was vented to the atmosphere; but in newer engines, it's recirculated back through the engine through the EGR (exhaust gas recirculation) valve. If you have ever had to replace this valve, you paid enough to know its purpose. Research has found that the cooler the burn in the engine, the less pollution it produces. This burned gas now goes in the engine again through the EGR valve, it's not vented into the atmosphere. The blowby routed back through the engine by the EGR only takes up space for compression, does not burn again and create heat, and is not vented to the atmosphere.

Blowdown is a completely different animal. It's burning fuel that is "blown" out the exhaust valve at the end of the power stroke when the burning is still taking place. When there is still pressure in the cylinder from the burn, the exhaust valve opens at a precise time, allowing the pressure from the explosion to be "blown" out the exhaust valve. This premature opening of the exhaust valve is necessary to help all the burned fuel exit the cylinder just before the piston comes up on the exhaust stroke. Just as the piston nears the end of its exhaust stroke, the intake valve opens, allowing a fresh, cool fuel mixture (or air on a diesel) to enter the cylinder. Actually, both the exhaust valve and the intake valve are open briefly at the same time. If an engine is running without an exhaust manifold on it, you will see the blowdown exit in the way of a flame. Yes, blowdown is wasted power, but it is necessary to "scavenge" the engine properly. ///

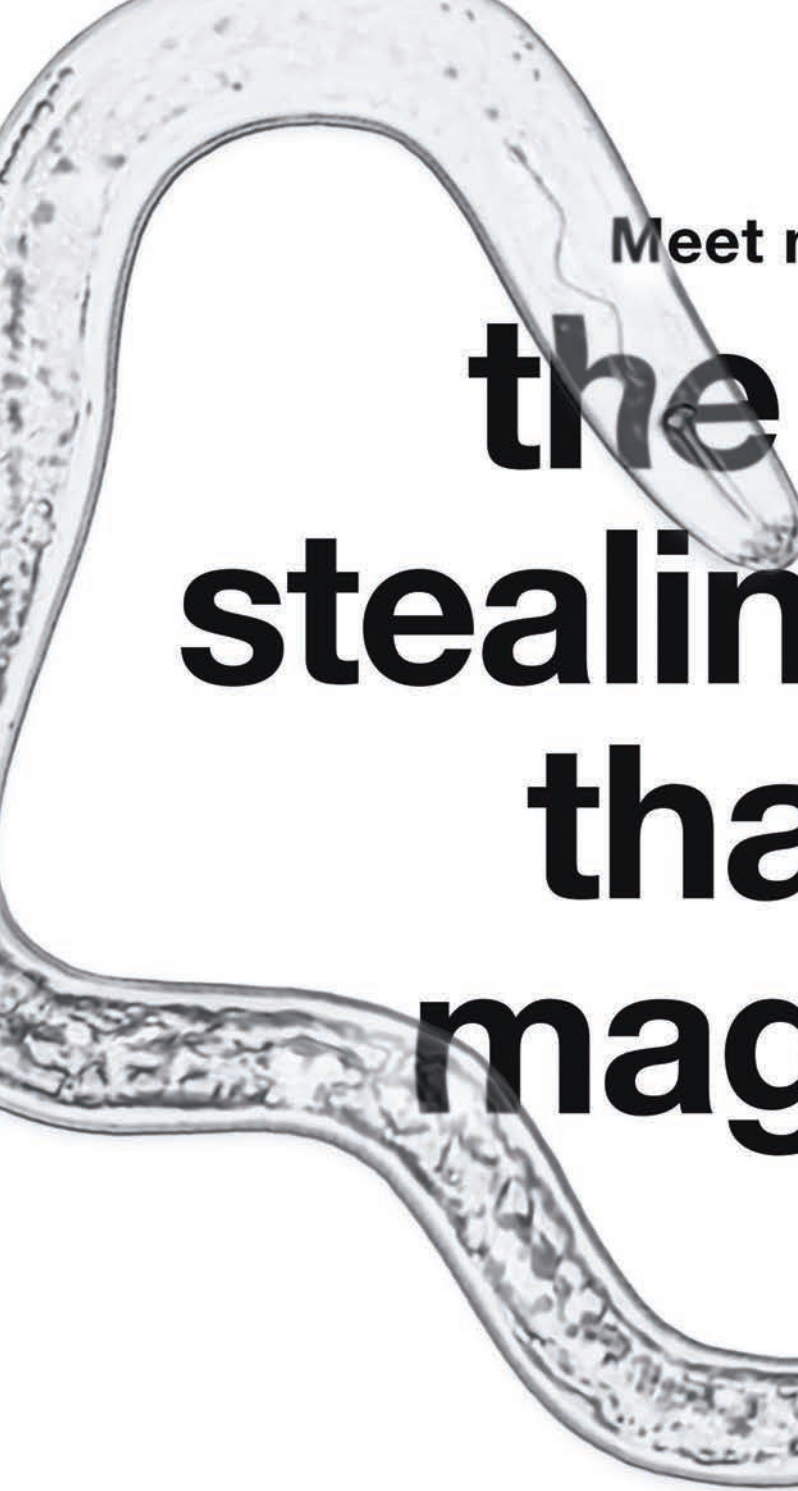
## SAFETY TIP

*Be very careful not to work under an implement, no matter how big of a hurry you are in to handle the crop. Hydraulic systems can fail internally and externally, instantly dropping the load. Take the time to set the safety stop (see photo, top right) on the implement. If it's inoperable, put jack stands, blocks of wood or whatever you can find to catch the load if it were to fall. The farmer in the photo (bottom right) is in a hurry to get his hay cut, but he took the time to engage the safety stop on his hay cutter. One hydraulic hose failure can change a life. The farmer working on this cutter went home safely—standing up, with his hay down. He set the safety latch on the cylinder at the back of the machine.*



PHOTOS: STEVE THOMPSON





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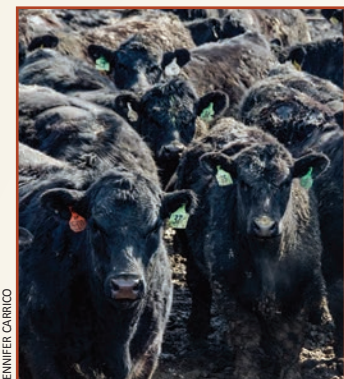
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# Research Implants Before Use



JENIFER CARRICO

**Q** We are thinking about starting to implant our calves. There are so many options, and everyone has an opinion. I get confused. Is this something we should be doing? Do you have any advice?

**A** **DR. McMILLAN:** I agree. There is tremendous confusion over growth implants, and there is a lot of conflicting information out there. The use of implants has greatly decreased over the last 30 years, from 64.3% of lots of beef calves sold through a video livestock auction service in 1995 to 26.5% in 2009. Less than 10% of all calves from herds with fewer than 50 cattle receive implants. People do not use what they do not understand, but in my opinion, producers need to do their research and become comfortable with the benefits of implants.

Implants have been called the closest thing to a free lunch in the cattle business. Those approved for use in suckling calves have been reported to improve weaning weights 3 to 5%. Similar performance improvements can be seen in pastured stocker cattle. Other reports have said implants increase gains by 0.1 pound per day, while a 2024 Penn State Extension report stated that most implant strategies return \$50 to \$100 per animal on average. These are just different ways to say implants work and improve profitability.

But, let's look at this from a different perspective. Implanted cattle have been reported to require 10% less land, water and feed, and reduce the carbon footprint by 6%. In this eco-friendly world, that means implants increase sustainability and are good for the environment.

Are there any reasons not to implant cattle? All-natural or organic programs typically do not allow implants. Bull calves to be retained for breeding should never be implanted. Calves can't be implanted before 30 days of age with any implant and not before 45 days for others.

Studies have shown that heifer calves implanted once between two months and weaning had minimal effects on pregnancy rates, minimal being 3%. My Alabama math says that's three fewer calves per 100 cows. More research needs to be done in this area, and I am not a fan of implanting heifers that have been identified as

Email Dr. Ken McMillan at  
[vet@dtm.com](mailto:vet@dtm.com)



replacements. Additionally, for implants to be effective, calves must be on a high-quality diet.

So, do your homework. Talk with your veterinarian, Extension agent or other producers who use implants. See if implants are right for you and your cattle. There is a good chance they will have some place in your operation.

**Q** You've talked about BVD in prior columns. What do we need to do to prevent it in our herd?

**A** **DR. McMILLAN:** BVD (bovine viral diarrhea) is a very confusing and misunderstood disease. Most people do not have a complete understanding of it. In fact, I am pretty sure I don't. I am still learning, as is everyone involved with this disease.

You and your veterinarian need to create a comprehensive herd-health program. Vaccinations and BVD protection must be a part of that. Many vaccines are labeled to provide fetal protection, which means if the cow is transiently infected with BVD virus, the developing calf will be protected.

A good biosecurity program is always essential to prevent exposure of the herd to disease. Purchase cattle only from well-known, managed herds. Quarantine any incoming calves, cattle or bulls for at least three to four weeks before introducing them into the herd. Fenceline management can be important if neighbor herds are not well-managed.

Good nutrition, including good mineral nutrition, is essential to having a healthy and disease-resistant herd. Minimize stress anytime cattle are handled. Good working facilities are not a cost but an investment that pay for themselves many times over.

Testing can be very helpful in finding and removing any PIs (persistently infected) from the herd. Since a PI cow will always have a PI calf, testing all calves, bulls and any cows that did not calve at the end of calving season is an effective herd-screening method. A tissue sample in a special solution is required and can be obtained by ear notching or a special gun that collects the sample into a small prenumbered tube. ///

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.

These are only my thoughts and general guidelines. Please get with your veterinarian and together develop the best program for your herd.



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> By Jennifer Carrico, @JennCattleGal



# Bid on Beef

*Auction platform lets consumers choose the cuts and the price they pay while connecting them to exceptional cattle producers.*

## > CONSUMER VIEW

Linda Salant, one of the first consumer buyers of beef from this platform, found the Bid on Beef option to be a great way to purchase exactly what she wants and have it delivered to her front door. “I’m an absolute carnivore, so all I eat is meat and animal byproducts, and I’m part of a larger community of carnivores. We want to buy

meat and talk about the sustainability and quality of the meat,” says the North Carolina native. “A lot of people are not satisfied with just going to the supermarket and buying the meat they know nothing about, but I like to know more.”

Finding a rancher close by isn’t always feasible for people in urban areas. Bid on Beef gives them an option to purchase just what they want, know how the meat is raised and have it delivered frozen within two days of the auction. The platform allows consumers to purchase lots of specific cuts of steak, ground beef or roasts.

“Knowing the quality will be the best available really provides the consumer customer with the perfect opportunity to purchase what we want, and we can decide what price we want to pay for it,” Salant explains. “Plus, it’s fun to be able to bring out my competitive nature and bid on what I want on an auction.”

## > AUCTION PROCESS

Bid on Beef is offered in two ways: a live or online auction. During a live auction, individuals bid on the cuts of meat mirroring how cattlemen would purchase a bull or female at an auction on the ranch. Some of the Bid on Beef auctions are held in conjunction with production sales on the farm.

Putting the consumer in the driver’s seat for purchasing high-quality beef directly from the ranchers who produced it just got easier with a new auction platform called Bid on Beef.

“The buyer gets to decide what they want to purchase. You get to pick the cuts, you get to pick the price, and we are just showing you the best of the best. You tell us what it’s worth,” explains Bid on Beef founder Chris Earl. “It’s really a win-win partnership and relationship that we’re building with these great families on the land and these families in the urban areas that we want to serve.”

Earl has seen firsthand the need for high-end meat. He had a meat company in Chicago for more than 20 years. But, he knew it could be done in a way to get the beef distributed in a wider area. “Commodity pricing was keeping the price of high-quality meat down from what it probably should have been,” he contends. “You just don’t find the quality of meat we have in America anywhere else in the world, and we wanted to offer this product to the public and let the buyer decide what it is worth.”

Earl’s idea that he had been formulating for the past 10 years was finally brought forward in 2024. He built the CK6 Consulting team to plan and market the Bid on Beef platform, which is just one of the services they provide for customers in the cattle business. Wes Tiemann serves as auctioneer for Bid on Beef sales. Aaron Duvall provides insight from his ownership of an Angus ranch, as well as the Texas Beefhouse restaurant in Whitehouse, Texas. Kody Fleeman and Amanda Radke help with marketing, planning and sales.



Wes Tiemann auctions off beef during a recent Bid on Beef sale. PHOTOS COURTESY OF BID ON BEEF



In the online timed auction, buyers must register with a secure credit card on file and then can decide which lot to try to purchase. When a potential buyer is outbid, they receive notification via text or email so they can rebid on the lot, if desired. As the sale comes to an end, a lot will close after it has no more bids in a two-minute period, and then buyers will be notified if they have won the lot.

*The Bid on Beef team consists of Wes Tiemann, Amanda Radke, Chris Earl and Kody Fleeman.*

“We are trying several different ways of selling the beef. We are even having a meal at a production sale to give people the opportunity to eat the beef that they will be bidding on,” Radke points out. “You can see the cattle, and you can stockpile your freezer all at the same time.”

Radke has been working with producers to develop the best way to market their program to buyers and consumers. The Bid on Beef experience does have some parameters to provide a great product.

Bid on Beef handles the collection of payments from customers and offers sellers a reduced shipping rate to send purchases across the country. A small commission is collected on each sale, and sellers are paid as soon as the beef has been shipped after the auction. There is no ▶



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membership fee to be part of the platform, as they are solely focused on results in the sale.

CK6 Consulting has specialized in the Angus seedstock business for 16 years and, in the last five years, has helped its clients exceed \$200 million in sales. It works with a group of purebred Angus producers throughout the year. No matter if the Bid on Beef sellers are CK6 clients or not, they provide advice on genetics, feed, beef cut specifications, shipping and packaging, and any other aspect of the direct-to-consumer beef-selling business.

“Our goal is to help make the best become even better. The CK6 model has been really focused on helping families stay on the land and find pathways to profitability,” she says. “Through Bid on Beef, we’ve identified that one of the ways we can increase profitability is by going directly to the consumer and getting closer to the consumer retail dollar.”

The group wants to provide a great beef-eating experience for buyers and is committed to selling USDA-inspected Angus and Wagyu beef on the auctions that is American raised, fed, processed, packaged and delivered by the individual cattle-ranching families.

“With our extensive experience and knowledge in the Angus breed, we have identified a niche in the market and the ideal customer we want to serve. Our focus is Angus beef or an F1 cross with Wagyu, primarily so we can hit the premium markets that prime beef can capture,” Radke explains.

### > KEEPING RANCHERS SUCCESSFUL

In one of the first pilot auctions with Texas Beefhouse, 13 lots of 150 pounds of beef were sold in 90 minutes and averaged just under \$31 per pound. This is the same amount some of these cattle families would sell in three or four months at farmers’ markets.

“The motivation for me is to keep good cattle-ranching families doing what they love, which is raising cattle and raising great beef, but also freeing up their

time so they can sell the beef in one or two auctions, and have more time to spend on the ranch and with their families,” Earl says. “It’s really exciting to see the culmination of their hard work.”

*Bid on Beef staff are all on deck selling beef cuts to buyers in person and online.*

Radke adds the success of the beef business is about being connected. The Bid on Beef team is connected to the cattle breeders and now the consumers. Just as she and Salant connected through social media, it’s important to find those seeking high-quality beef who may not have it readily available in their area. “I believe it’s relationship based. We have to make the connections and continue to tell our story. I truly believe if people got to know America’s cattle ranchers, they would appreciate the values, the work ethic and the family and community that we hold dear,” she stresses.

Moving forward, Radke says they don’t have a specific number of sellers in mind but have recently interviewed more than 130 potential sellers on the platform and have verified 22. “Our intention is to vet the best ranchers in the country, who can provide a consistent, high-quality product delivered straight to our customers. Every ranching family we have interviewed is at a different point in their beef business, so we provide consultations, shipping and packaging advice, and marketing strategies to these folks. And, just like cattle sales, we believe competition will rise the best to the top and make the best even better,” she explains.

Interest has been growing since starting sales this summer. For the remainder of 2024, there are two to three Bid on Beef auctions per week.

“Our challenge and passion is reaching our target customer in urban areas, and we spend a great deal of time and effort working to connect with these folks who want to source USA premium beef from a trusted ranching family,” Radke stresses.

Visit [www.bidonbeef.com](http://www.bidonbeef.com) for more information. ///



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

*Men across America are raving about a newly enhanced performance 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 old selves and to get and maintain a healthy



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

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 **1-800-906-7142** 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 **1-800-906-7142** to secure your supply of **Primal Max Red** and free bottles of **Primal Max Black**. Use Promo Code **FPFMAX1024** when you call. Lines are frequently busy, but all calls will be answered!

# GEORGIA— The Citrus State?

*A Louisiana fishing trip spawns a Satsuma orange enterprise in an unlikely spot.*

When six southeast Georgia buddies take a fishing trip to Louisiana, you can bet there will be tall tales told, a run on hot grease and corn meal, a card game or two played, and maybe even a cold beverage consumed. If you're specifically talking about Joe Franklin and his friends, add the birth of a new enterprise to the list.

Most years, the group makes the annual trip in spring. But, in 2009, their fishing guide talked them into waiting until fall, promising abundant redbfish. When they got to Louisiana, Franklin says they kept seeing roadside stands advertising Satsumas. They didn't have a clue what a Satsuma was, so they stopped and bought a bag.

Like most folks, Franklin was quite taken with the sweet taste of the fruit, a variety of the mandarin orange. It didn't take long for the analytical mind of the retired Statesboro businessman to kick in.

Fifteen years later, he vividly recalls that day. "When I first peeled one, I got that sweet citrus smell. The second thing I noticed was the sections separated very easily. The third thing was when you put it in your mouth and bit on it, it was very, very juicy, and you got that sweet citrus taste."

Then, he noted the albedo, which he calls "rag." That's the white stuff you see when you peel an orange. In Satsumas, Franklin says, "there wasn't as much rag, and it wasn't bitter but very pleasant and tender."

After experiencing the sweet taste of a Satsuma, Joe Franklin started a business venture in South Georgia to grow the orange and other citrus.



## > IDEA TAKES ROOT

Franklin's mind was not on fishing after tasting the Satsuma. Normally, he and his friends would start fishing at daybreak and return to the dock by 1 p.m. They'd relax the rest of the day.

Not Franklin. With the taste of the Satsuma still fresh in his mind, he went looking for a nursery that sold the citrus tree. Franklin found Star Nursery, in Belle Chasse, where owners Joe Ranatza and his daughter, Dawn Camardelle, answered his questions and took an order for 200 Satsuma trees for delivery the following spring.

Georgia is known more for peanuts than citrus, but Franklin was optimistic. "Our soil is very similar to Louisiana's. Our weather pattern is about the same, too. We get the spring rains from fronts coming from Louisiana and Texas. In Florida, this is the dry time of the year; it's too far south to get those fronts."

He admits he always did enjoy planting something and watching it grow. Trees, most anything, really.

"From the time I retired in 2004 'til I started in the citrus business, I planted all kinds of peaches and plums,



apples, palm trees, kiwi vines, grape vines ... we've tried all kinds of stuff. In my hoop houses, I used to have papayas, bananas and mangoes."

### > TIME TO PLANT

By the time the trees arrived in the spring of 2010, Franklin had chisel-plowed strips across 2 acres, then hand-dug holes with a shovel. With fertilizer, drip irrigation installed and \$18 per tree, he estimates the start-up enterprise cost at \$4,000.

It takes Satsumas around four years before they really start to produce, but Franklin didn't slow down. He continued expanding each year. And other people were watching and thinking along the same lines as Franklin.

Lowndes County Extension coordinator Jacob Price says other growers were looking to citrus as a new income stream for the area. Price serves as area citrus specialist for the budding industry, and he says by 2013, growers had planted citrus groves ranging from 10 to 20 acres.

"After four years, the trees were surviving. So, bigger farmers started putting in 20, 30, even 50 acres," he says. A state mandate to buy local food for school lunches helped fuel the increase.

Today, Price estimates there are 4,000 acres of citrus in South Georgia, with 65% of those Satsumas. "They are a lot more cold hardy than other citrus, so there is a lot less risk," he explains.

### > TEMPERATURE AND SHIFTING CLIMATE

Satsumas may be cold hardy, but when nighttime temperatures dropped to 14°F on Franklin's farm during Christmas 2022, followed by two more nights of bitter cold, he headed off a total disaster by calling a friend and getting harvesters into the orchards before the fruit froze.

"We were able to sell it so we came out OK," Franklin reports. However, he says damage to the trees and resulting loss of foliage means he had a light crop in 2023. "We just got the trees replanted from the damage." It was the late-spring freeze in March 2022, though, that did the most short-term economic damage by destroying the buds. He estimates it reduced his crop by 50%.

"I knew the cold weather was going to be my main obstacle to overcome. It still is," Franklin says.

Looking at data, the threat of cold isn't as big a danger as it once was. Pam Knox, University of Georgia agricultural climatologist, says, "The average temperature for December through February in

Georgia, which is the climatological definition of winter, has generally been rising since the early 1960s, although of course there are year-to-year variations."

### > EXPANSION AND EXPERIMENTATION

Franklin says he's betting on those little temperature bumps. He's up to 78 acres of citrus, including cara cara (a red navel orange), ruby red grapefruit, Georgia Kisses (a seedless kishu) and Meyer and Yuzu lemons. Meyer lemons tend to be more juicy than other varieties, while Yuzu lemons are used in Asian dishes strictly for their zest.

Satsumas still get the most acreage and star billing at Franklin's Citrus Farm, but Bingo, a small seedless, easy-to-peel mandarin, is an up-and-comer. Developed by the University of Florida, it got its name in a blind taste test when a researcher called out the original numbers of the experimental varieties and a grower responded with a hearty "Bingo."

Franklin says, "This is our first year of full production."

### > READY MARKETS A PLUS

Citrus is definitely a high-risk, high-reward enterprise as far north as Georgia, but Franklin is generally pleased with his return on investment.

He usually sells a 20-pound box at wholesale for \$24 and a 5-pound bag retail for \$12. He tries to maintain 150 trees an acre, and each tree produces around 150 pounds of fruit annually once established.

Ready markets are another plus. Besides his own farm stand and the farmers' market he sells at in Statesboro, his citrus goes to Georgia farmers' markets in Atlanta and Savannah, as well as South Carolina markets in Bluffton, Charleston and Port Royal. The goal is to double production to have the volume to sell to grocery store chains. Franklin predicts he'll make it by 2027.

Don't think Georgia's Satsuma king is letting his 78 birthdays slow him down, either. With Franklin's 39-year-old farm partner, Billy Renz, the next big idea is a you-pick operation the two opened in late-March 2023. It's now 24 acres and features citrus, peaches, watermelons, blackberries, tomatoes, okra, cucumbers and squash. It's strategically placed behind the operation's farm stand on busy U.S. Highway 301. It's just one more rung in Franklin's diversification aimed at keeping the cash flowing year-round.

He only has one regret. "I wish I had gotten into this 40 years ago," Franklin smiles. "But, hindsight is always twenty-twenty." ///





# Cold-Weather Comfort

## SLOW COOKER SPICY BEEF CHILI

*When the weather starts to cool down, add a little heat to your dinner rotation.*

TOTAL TIME: 4-6 HOURS

SERVES: 6-8

- 2 pounds ground beef
- 2 (16-ounce) cans kidney beans, rinsed and drained
- 2 (14.5-ounce) cans diced tomatoes, drained
- 1 (8-ounce) can tomato sauce
- 1 jalapeño pepper, chopped
- 2 white onions, chopped

- 2 cloves garlic, minced
- 3 tablespoons chili powder
- 1 tablespoon cayenne pepper
- 2 teaspoons salt
- 1 teaspoon ground black pepper

1. Heat a large skillet over medium-high heat. Cook ground beef in the hot skillet until browned and crumbly (about 5 minutes). Drain; discard excess grease.

2. In a large slow cooker, combine cooked beef, kidney beans, diced tomatoes, tomato sauce, jalapeño pepper, onions, garlic, chili powder, cayenne pepper, salt and black pepper.

3. Cover; cook on high 4 hours (or low for 10 hours). Adjust seasonings to taste.

4. Serve with your favorite toppings, such as sour cream, pickled jalapeños or green onions.

## SOFT APPLE CIDER COOKIES

*The green apple in these sweet treats gives the cookies a delectable, chewy finish.*

TOTAL TIME: 20 MINUTES

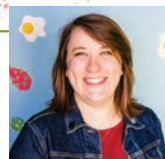
MAKES: 12 COOKIES

- 1 box Spice Cake Mix
- ½ cup vegetable oil
- 2 large eggs
- 1 small green apple, shredded
- ⅓ cup cream cheese frosting
- Ground cinnamon for dusting (optional)

1. Heat oven to 350°F; line two baking sheets with parchment paper.
2. In a medium bowl, combine cake mix, oil and eggs; mix until a soft dough forms. Stir in shredded apple.
3. Drop dough by the tablespoonfuls onto the parchment paper about 2 inches apart.
4. Bake 8 to 10 minutes or until tops of cookies are set. Transfer cookies to a cooling rack; cool completely.
5. Once cookies are cool, spread frosting on top; dust with ground cinnamon, if desired. ///



Recipes and Photos By  
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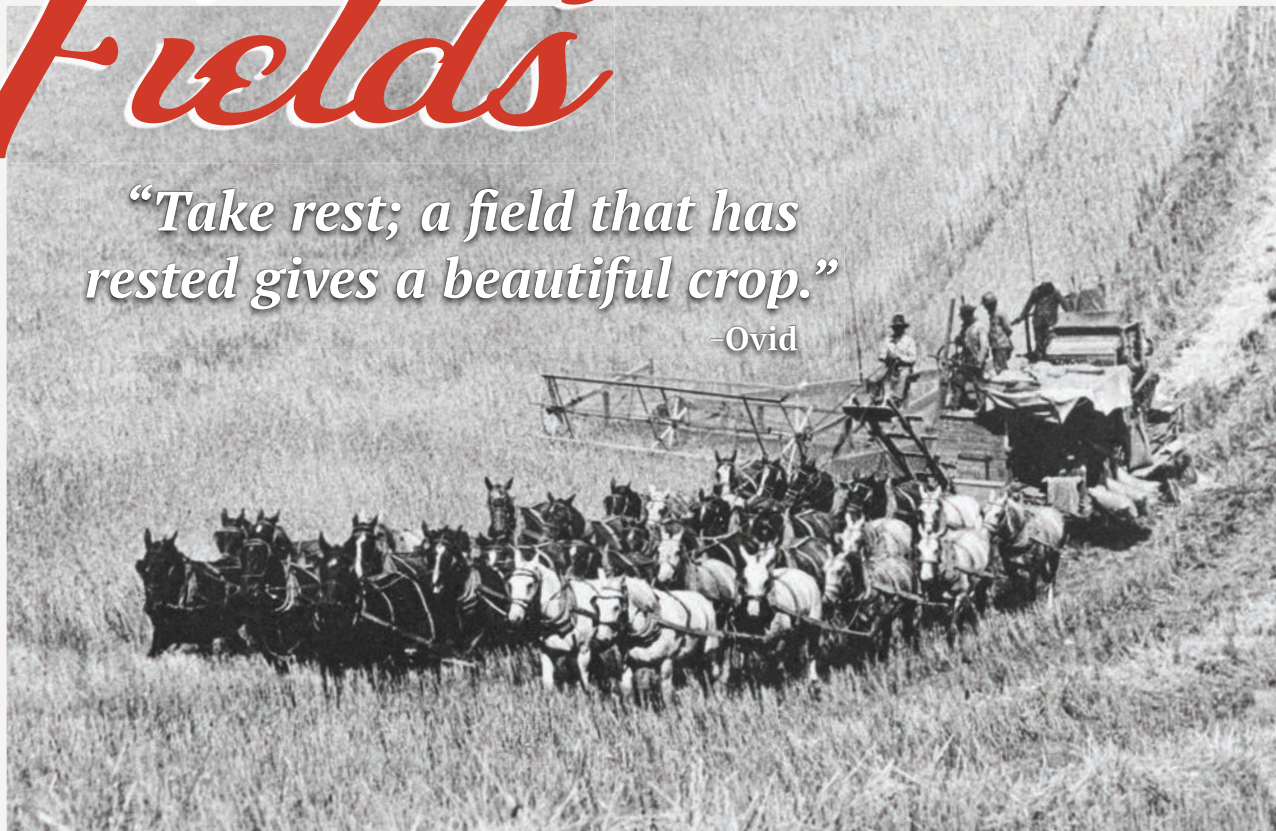
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# Fields

*“Take rest; a field that has rested gives a beautiful crop.”*

—Ovid



USDA OFFICE OF INFORMATION, PROGRESSIVE FARMER ARCHIVES, 1902

Earth and sky, woods and fields, lakes and rivers, the mountain and the sea, are excellent schoolmasters, and teach some of us more than we can ever learn from books.

**JOHN LUBBOCK**

The moon is at her full, and riding high, floods the calm fields with light. The airs that hover in the summer sky are all asleep tonight.

**WILLIAM CULLEN BRYANT**

The hum of the wind in the tree-tops has always been good music to me, and the face of the fields has often comforted me more than the faces of men.

**JOHN BURROUGHS**

Farming looks mighty easy when your plow is a pencil and you're a thousand miles from the corn field.

**DWIGHT D. EISENHOWER**

No race can prosper till it learns that there is as much dignity in tilling a field as in writing a poem.

**BOOKER T. WASHINGTON**

I've always said that one night, I'm going to find myself in some field somewhere, I'm standing on grass, and it's raining, and I'm with the person I love, and I know I'm at the very point I've been dreaming of getting to.

**DREW BARRYMORE**

The young pines springing up in the corn-fields from year to year are to me a refreshing fact.

**HENRY DAVID THOREAU**

Again, the kingdom of heaven is like unto treasure hid in a field; the which when a man hath found, he hideth, and for joy thereof goeth and selleth all that he hath, and buyeth that field.

**MATTHEW 13:44 (KJV)**

Give fools their gold, and knaves their power; let fortune's bubbles rise and fall; who sows a field, or trains a flower, or plants a tree, is more than all.

**JOHN GREENLEAF WHITTIER**

It is not a field of a few acres of ground, but a cause, that we are defending, and whether we defeat the enemy in one battle, or by degrees, the consequences will be the same.

**THOMAS PAINE**

If you were plowing a field, which would you rather use? Two strong oxen or 1024 chickens?

**SEYMOUR CRAY**

Divine Nature gave the fields, human art built the cities.

**MARCUS TERENTIUS VARRO**



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