

USDA, FDA will jointly regulate cell-cultured meat

The Department of Agriculture and the Food and Drug Administration will share regulatory oversight of cell-cultured meat products, Ag Secretary Sonny Perdue and FDA Commissioner Scott Gottlieb said today.

The declaration comes after lengthy debate over which agency was best positioned to regulate the technology, which produces foods derived from animal cells grown in a laboratory environment rather than from traditional production agriculture.

“This regulatory framework will leverage both the FDA’s experience regulating cell-culture technology and living biosystems and the USDA’s expertise in regulating livestock and poultry products for human consumption,” Perdue and Gottlieb said in a joint statement. “USDA and FDA are confident that this regulatory framework can be successfully implemented and assure the safety of these products.”

According to Perdue and Gottlieb, FDA will oversee “cell collection, cell banks, and cell growth and differentiation.” Once the process transitions over to the harvest stage, oversight will switch to USDA, which will supervise “the production and labeling of food products derived from the cells of livestock and poultry.”

The two agencies are “actively refining the technical details of the framework,” the two leaders said. Sufficient regulatory authority already exists, Perdue and Gottlieb insist, so “the Administration does not believe that legislation on this topic is necessary.”

A joint approach has been suggested before, including in a joint letter from the North American Meat Institute and cultured meat producer Memphis Meats. In a letter to the White House in August, the two entities suggested both USDA and FDA oversight, saying such a framework “is not new and plays into the strengths and experience of FDA and USDA.”

Perdue told reporters in October he thought the letter from the two groups “had it right.”

“I think we can go a long way between FDA and USDA in resolving how we move forward quickly,” he said in a media availability after addressing NAMI members in Washington. “The main thing is we don’t want this new technology to feel like they’ve got to go offshore outside the United States to get a fair regulatory protocol.”

"This regulatory framework plays to the respective strengths of both USDA and FDA, while continuing to foster innovation and assure a safe and reliable food system," he said. "We look forward to providing additional input as this process continues."

Colin Woodall, chief lobbyist for the National Cattlemen's Beef Association, called the joint approach with USDA having "primary jurisdiction over the most important facets" of the process "a step in the right direction." He added there is "there is still a lot of work to do on this issue to ensure that real beef producers and consumers are protected and treated fairly."

USDA and FDA held a joint meeting in Washington last month to examine the technology and the challenges posed by it. A comment period stemming from that meeting will be extended to Dec. 26.

South Dakota Crop Report

South Dakota’s soybean crop is in the bin, and the harvest of other late-season crops is progressing.

The federal Agriculture Department in its weekly crop report says 86 percent of sorghum, 82 percent of corn and 63 percent of sunflowers are harvested.

Soil moisture in the state is rated mostly adequate to surplus.

Pasture and range conditions are rated 50 percent in good to excellent condition

Three tax moves to make before the end of the year

1. Fix your paycheck

Start with the IRS withholding calculator (<https://www.irs.gov/individuals/irs-withholding-calculator>), to make sure the right amount of tax has come out of your check so far this year. The Government Accountability Office has estimated that about 21 percent of taxpayers have not been withholding enough from their pay during the year to cover taxes they will owe. That means even though your tax bill could be lower than last year's, you might still owe when you file your return if you have not had the right amount taken out all along.

Even an up-to-date W-4 may be claiming too many allowances now that deductions and exemptions for family members have been eliminated, said Jackie Perlman, tax analyst for The Tax Institute of H&R Block, especially if you filed a W-4 years ago at your workplace and never updated it.

“If you are used to getting a large refund, and anticipate it will go into fixing your van or paying for college, the results could be a blow,” said Cari Weston, director of tax practices and ethics for the American Institute of Certified Public Accountants.

You may also face a penalty if you paid too little throughout the year.

There is still time to fix it. File a new W-4 at your workplace, perhaps with no allowances, so you pay a large chunk of taxes during the rest of the year. If you think you paid too much, do the reverse.

2. Add up your deductions

This year, the standard deduction has almost doubled to \$24,000 for couples and \$12,000 for singles. Families will also benefit from larger child credits of \$2,000 per child. But deductions for state and local taxes can total only \$10,000, which may be far lower than what they previously deducted for income, property and other taxes in high tax states such as New York or California.

Robert Keebler, a CPA with Keebler & Associates in Green Bay, Wisconsin who trains others, suggested a new strategy: Itemize every other year. The idea is to simply take the standard deduction in one year and the next year bunch together as many deductions as possible so they far exceed the standard deduction.

For example, maybe in the past you gave to charity each year and deducted the contributions, but this year, if you take the standard deduction the charitable contributions will not help cut your taxes. So you could skip giving to charity in 2018 and make a double contributions in 2019.

You could also wait until January 2019 to pay any state or local tax bills that arrive this December. When those bills come around again in December 2019, pay them quickly that year to amass another big tax deduction. You might also cluster medical expenses like dental or vision into 2019, and time your mortgage interest payments also.

3. Max your retirement

The easiest way to make a substantial reduction in your taxes continues to be to reduce your income by filling up 401(k)s at work to the maximum or to fund traditional IRAs if you qualify. That will not only help lower your tax bill, but contributing to your retirement fund or health savings account will benefit you for years into the future.

South Dakota Online Sales Taxes Attracting Lots of Attention

Online retailers began collecting sales taxes in South Dakota on November first, and legislators will be anxious to see how much money that brings in. Dave Owen, President of the South Dakota Chamber of Commerce and Industry, says legislators will have to decide if they want to use the money to cut the half cent sales tax increase, and they will be tempted to use the extra money for other needs. Governor Dennis Daugaard delivers his budget address on December fourth. The legislative session begins on January eighth.

Where's the Beef? On Its Way to China

China, a nation of pork lovers, has developed an appetite for overseas beef that could see it buying record amounts this year.

The biggest consumer of global commodities boosted beef imports by almost 80 percent in October from a year earlier to 92,435 tons, customs data showed. That brings this year's shipments to more than 830,000 tons, on pace for an annual record. Meanwhile, pork purchases fell 2.2 percent last month, with beef imports eclipsing pork for a third month.

"Beef imports this year are set for a record high as more Chinese shift to high-quality meat," said Zhu Cong, a researcher with the Chinese Academy of Agricultural Sciences in Beijing. "The country has opened its market to more countries."

Overseas suppliers may be unable to meet China's robust appetite for beef as constraints on the expansion of domestic herds limit home-grown production, said Pan Chenjun, analyst with Rabobank International in Hong Kong.

Corn growers, EDF join forces in 'first-of-its-kind' partnership

In what they are calling a "first-of-its-kind partnership," the Environmental Defense Fund and the National Corn Growers Association are joining forces to help farmers and rural communities meet the pressing challenge of protecting the environment while maximizing productivity and profit.

In a joint release, EDF and NCGA say the partnership will elevate the importance of continuous improvements for water quality and climate resilience, while strengthening yields and profitability.

"Many practices that increase soil health and water quality also boost farmers' bottom lines," said Suzy Friedman, EDF's senior director of agricultural sustainability. "EDF and NCGA have worked together for many years to align economic incentives and environmental outcomes. Formalizing our partnership was a natural next step to accelerate progress toward our shared goals."

Nathan Fields, vice president of production and sustainability at NCGA, agreed. "EDF and NCGA are stronger together," he said in the release. "We have different expertise and perspectives, and combining them is a real opportunity."

The two groups say they plan to prioritize their efforts in the following areas:

- **Data and measurement** to improve tracking of water quality, soil health and greenhouse gas emissions, and scale user-friendly technology solutions for data reporting and analysis.
- **On-farm engagement** to increase farmer and agronomist knowledge about innovative conservation tools and practices.
- **Policy advocacy** to support voluntary, incentive-based conservation programs with measurable environmental outcomes.
- **Finance and economics** to explore and grow opportunities for farmers to benefit economically from conservation practices such as cover crops and conservation tillage.
- **Outreach and communications** to build bridges between farmers and consumers.

Rod Snyder, president of Field to Market, welcomed the collaboration.

"Achieving supply chain sustainability goals requires close collaboration throughout the value chain," he said. "This partnership between EDF and NCGA promises to be a powerful way to help translate corporate sustainability commitments into on-farm conservation that works for farmers and the environment."

Food waste in Africa starts long before the grocery store

By just about any measure, more food is wasted in developed countries than developing countries, but when it comes to assessing impact, lost food can be absolutely tragic in countries like Nigeria where a lack of infrastructure and energy sources commonly wipes out crops, bankrupts farmers and steals food from the hungry.

On most any commercial produce farm in the U.S. the tomatoes, lettuce or whatever is being harvested ends up in electric coolers within two hours of being harvested and then stays chilly and fresh until it ends up in a shopping cart or served in a restaurant.

Every year in Nigeria, 123 million metric tons of food never makes it to consumers because it spoils in the African heat before getting to the market, Nnaemeka Ikegwuonu, a farmer and entrepreneur, writes this week in a guest blog for the International Food Policy Research Institute (IFPRI).

“In Nigeria, 45 percent of food spoils due to lack of cold storage, causing ... small farmers to lose 25 percent of their annual income,” Ikegwuonu said, quoting data from a Rockefeller Foundation study.

“We don’t really have that problem in the U.S.,” says Charles Hall, executive director of the Georgia Fruit & Vegetable Growers Association. Cooled storage facilities are abundantly available – often located on location at larger farming operations.

“Most farms will have some type of packing facility or they’ll be taking the product to a nearby packing facility,” he told *Agri-Pulse*. “If a grower is not large enough to pack their own product, they’ve probably got a contract with a nearby packing house.”

The key to keeping produce fresh is not just the coolers themselves, it’s also the easy access to electrical energy to keep the machinery humming, said Hall.

And that’s a major problem in much of rural Africa – a problem that Ikegwuonu has a solution to. Besides growing pineapples and cucumbers, he is also the CEO of Coldhubs, a rapidly expanding company that provides cheap cold storage through coolers that are powered by the sun.

“Most refrigeration technologies are not rugged enough to withstand the harsh conditions of rural Nigeria; power grids are not capable of delivering reliable energy, and most equipment is too costly for the average farmer to purchase,” says Ikegwuonu. “Coldhubs are walk-in, solar-powered cold stations that provide uninterrupted storage and protection for produce, installed in farms and marketplaces where there is a need for refrigeration.”

These solar-powered coolers can extend the shelf life of a farmer’s crops by from two days to three weeks for about 50 cents per crate and they are already preventing thousands of tons of fruits and vegetables from spoiling, the farmer-CEO said.

“So far, in the last two years, with five operational cold hubs, nearly 5,800 tons of fruits and vegetables have been saved from spoilage, and more than 300 farmers, retailers and wholesalers have nearly doubled their monthly income,” he said.

The lack of cold-chain technology and energy sources are major problems throughout Africa and in developing nations elsewhere, according to the Rockefeller Foundation, IFPRI, the United Nations and other organizations looking for innovative ways to reduce food waste.

About a third of all the food produced in the world for human consumption ends up in landfill and trash heaps, according to an assessment of the United Nations’ Food and Agricultural Organization (FAO). That’s roughly 1.3 million tons of food – mostly fruits and vegetables. To put that into perspective, about \$680 billion worth of

food is wasted in industrialized countries, while less than half - \$310 billion worth – is wasted in developing countries.

While most food waste in industrial countries happens at the consumer level, losses in low-income nations “are mainly connected to financial, managerial and technical limitations in harvesting techniques, storage and cooling facilities in difficult climatic conditions, infrastructure, packaging and marketing systems,” the FAO says. “Given that many smallholder farmers in developing countries live on the margins of food insecurity, a reduction in food losses could have an immediate and significant impact on their livelihoods.”

Multiple efforts are underway to increase investment in technology and infrastructure to reduce food waste across Africa, including by the Nigerian government. The country’s Ministry of Agriculture and Rural Development recently announced an initiative offering tax breaks on imports of food processing and storage facilities.

The Staple Crops Processing Zones program goes further than that, though, promising new government investment in roads, power, irrigation, flood control, railways and more. The grand plan also includes a blueprint to “link farmers in clusters to food manufacturing plants.”

The World Food Preservation Center, a collaboration of research institutions and universities around the globe, laments that 95 percent of agricultural resources are dedicated to food production, while only 5 percent goes toward food preservation. So long as that’s the case, African farmers will continue to lose as much as half the food they produce before it gets to the market, the Center says.

Collapsing Energy Market Depresses Ag Commodities

This week, corn closed down a nickel, soybeans were down a dime and wheat closed down six or seven cents. Despite this collapse in the energy, there is a silver lining for farmers. It offers a grand opportunity for farmers says Jerry Gulke, president of the Gulke Group. This collapsing energy market could offer significant savings if fuel is contracted while prices are low. Farmers could see as much as a 40 cent per gallon savings depending on their area, which could help going into the new year. Picking the bottom however is like catching a falling knife.

The other good news this week was the bullish Cattle on Feed report, released on Wednesday, Nov. 21.

“We had a Thanksgiving gift in the Cattle on Feed report. It showed less cattle on feed and less placement,” Gulke says. “Unfortunately,” he continues, “it justifies why USDA has been lowering feed usage,” which in turn means we consume less corn.

As we head into a new month, we’re waiting to see if a trend change is coming or not and the potential for a new trade deal with China remains in the realm of the unknown. Gulke believes something is bound to happen but we’ll have to wait and see how the Trump/China trade saga plays out. Hopefully, we won’t have to wait much longer as they are scheduled to meet on Dec. 1.

IRFA Executive Director Sees New Congress As Positive For Biofuels

The makeup of the new Congress is expected to be friendly to the biofuels industry. That’s according to Iowa Renewable Fuels Association Executive Director Monte Shaw. He thinks the Renewable Fuel Standard is in pretty good shape with both the House and the Senate.

He says the jury is still out on Andrew Wheeler who’s expected to be nominated to the full time position as EPA administrator. Shaw says though he’ll likely be better than former administrator Scott Pruitt was.

Shaw says there’s a lot of unfinished business for renewable fuels that the EPA needs to handle going forward.

Shaw says he thinks Wheeler wants to do the right thing for renewable fuels but we’ll have to wait and see.

Solving the Right Time Puzzle

When it comes to the 4Rs of crop nutrition (right source, right rate, right time, right place), many farmers focus most of their attention on right rate. However, as Dr. T. Scott Murrell explains, the 4Rs should be thought of as a system that intertwines and works together to create a well-managed crop nutrition program. The R that coordinates them all is right time.

"It's hard to compartmentalize all of the 4Rs," Dr. Murrell says. "To be performed properly, nutrient management must include more than just rate. Timing, placement and source are just as important. Right time, in particular, is important, because it is the best way to synchronize the application of nutrients for the time that the crop needs them."

Murrell is a director at the International Plant Nutrition Institute (IPNI) and has spent much of his 20-year career studying corn-and-soybean systems in the Midwest.

Serving as a synchronizer, optimized timing helps maximize fertilizer effectiveness, improves nutrient use efficiency, and lessens nutrient losses to the environment.

"Fall applications are appropriate for phosphorus, potassium, zinc and elemental sulfur," says Murrell.

"Elemental sulfur requires time to convert to sulfate sulfur - a couple of months or more, according to some university guidelines. Phosphorus, potassium and zinc form chemical bonds with minerals in the soil. As a result, their movement becomes limited in the soil to just a few inches. In the spring, they will still basically be where they were placed the previous fall."

Phosphorus (P), potassium (K), zinc (Zn) and elemental sulfur (S0) applied in the fall should be broadcast on the soil surface and mixed into the soil with tillage or banded below the soil surface. This helps avoid potential surface runoff during more intense or longer-duration rainfall that could take place in the days following application.

According to Murrell, fall typically has a greater number of suitable days for fieldwork than spring. Days good for this are measured as "days suitable for fieldwork," a metric that is defined and tracked by the USDA National Agricultural Statistics Service. A suitable day is defined as one during which "weather and field conditions allow producers to work in the field most of the day." Allocating some of the nutrient applications to the fall helps ease the workload in the spring, when fewer suitable days are available.

On sandy, coarse-textured soils, spring applications are best. These soils have fewer minerals present to hold these nutrients in place over the winter. Spring applications are also best for K on organic soils.

"Spring or in-season applications are best for nitrogen and sulfate sulfur," Murrell points out. "Nitrogen fertilizers, if they don't already contain nitrate, will eventually form nitrate, which is mobile in soils and moves with water in soil. Sulfate sulfur moves in soils the same way. Spring applications increase the effectiveness of these nutrients, reducing the chances for unwanted losses to the environment. This results in a healthier crop, higher yield and, ultimately, a greater return on investment."

Applying a portion of the nitrogen preplant and another portion side-dress is known as a split application. A split application is commonly used as a risk management strategy.

"The time between preplant and side-dress applications can also be used to assess the growing season," states Murrell. "Once a preplant nitrogen application is made, farmers can monitor the crop and assess its nutritional status. If more nitrogen is needed, more can be applied as a side-dress application. There are a growing number of tools that help farmers make this assessment.

"Although lower rates must be used, a very efficient way to apply all of these nutrients is at planting," Murrell adds. "Applying them in a band near the seed puts them in the right position to be accessed by young root systems early in the season."

Unlike P, K and Zn, the right time to apply S is always the springtime, Murrell says. This is because, like nitrogen, sulfur is mobile and acts as a multi-nutrient in the soil. When applying S in the spring, farmers should utilize a starter application - applying nutrients at the same time as seeding. It is particularly effective to apply S in early springtime for certain soil profiles.

Some soils contain sulfate sulfur (SO₄²⁻) lower in the soil profile than a young root system can reach. Because of this, early-season S deficiencies can occur, but starter applications of SO₄²⁻ can prevent them. Later in the season, roots grow farther down into the soil, where they can finally reach and absorb the S in the soil.

"Early-season nutritional deficiencies can have repercussions later on," notes Murrell. "If you don't fertilize and the soil is deficient, nutritional problems will lower the yield and the quality of the crop. That's why it's important to ensure that plants are getting all they need - starting early in the season and continuing throughout the entire period of plant nutrient uptake."

Sulfur deficiency can be particularly problematic for oil crops, such as soybeans and canola, which rely upon S for oil development in the seeds.

"Soybeans and canola can be more sensitive to sulfur deficiencies in the soil than other crops," Murrell says. "When those crops have sulfur deficiencies, they don't have as high of an oil content, so a sulfur deficiency can affect their yields substantially."

Although decisions about nutrient timing are dependent on nutrient availability in the soil and many other management factors, according to Murrell, farmers have a greater opportunity than ever before to understand the optimum fertilizer timing for their crops. One way this can be done is by participating in on-farm research.

"It's easier than ever before to participate in on-farm research, thanks to farmer networks that provide support and precision agriculture tools, which have reduced the time and labor required to put out trials and collect data," Murrell says. "If farmers want to know if nutrient timing can be improved under their specific set of conditions, I highly recommend they put out a trial and find out for themselves."

Do It Right Every Time

Many farmers don't leverage their technology investments because they haven't completed the necessary training or implemented proper protocols, says Steve Cubbage, precision ag consultant and owner of Record Harvest.

"We do a lot of planning for crop production, but not a lot of technology planning," he says.

Wouldn't it be helpful to have a simple checklist that explains how to do these tasks? That's where standard operating procedures (SOPs) come in to play. SOPs are written, detailed instructions that describe how to do repetitive key tasks. They create efficiency and consistency, so you won't be overwhelmed by the process.

"The No. 1 rule is to keep it simple," says Barron, also a financial consultant for Ag View Solutions and Top Producer columnist. "As you create your first draft, involve people in the operation who work with existing processes. At each step, ask yourself why things are being done that way. It might be possible to eliminate steps."

After establishing a new process, share it with a younger team member or someone outside the farm. Can they understand it?

Sometimes we don't do a good job of simplifying processes so others understand them," Barron explains.

Once you test the SOP, go through the process yourself to ensure it makes sense. Then the team can review it together. After everyone is happy with the process, laminate it and post it where the work will be completed. It's also helpful to keep a binder in the office with all SOPs.

"Quality SOPs are flexible to change based on feedback," Barron says. "Ongoing training is critical to ensure SOPs are followed regularly. These days, the old saying 'If you want it done right, you've got to do it yourself' no longer applies."

Markets

Corn		Live Cattle	
Dec-2018	359^0P	Dec-2018	117.100P
Mar-2019	370^4P	Feb-2019	120.925P
May-2019	378^2P	Apr-2019	123.150P
Soybeans		Feeder Cattle	
Jan-2019	881^0P	Jan-2019	149.375P
Mar-2019	894^6P	Mar-2019	145.925P
May-2019	908^0P	Apr-2019	146.250P
Wheat		Lean Hogs	
Dec-2018	499^6P	Dec-2018	59.075P
Mar-2019	507^2P	Feb-2019	67.825P
May-2019	513^0P	Apr-2019	72.400P

Commodity	Price	Basis	Delivery Start	Delivery End
Corn (#2 Yellow)	3.16	-43.00	10/1/2018	11/30/2018
Corn (#2 Yellow)	3.16	-43.00	12/1/2018	12/31/2018
Soybeans (#2 Yellow)	7.76	-105.00	10/1/2018	11/30/2018
Soybeans (#2 Yellow)	7.76	-105.00	12/1/2018	12/31/2018
Wheat (Hard Red Winter, Kansas City)	4.16	-45.00	12/1/2018	12/31/2018

FDA approves drug that cuts gas emissions from beef cattle

The FDA has approved a drug – Experior Type A, sponsored by Elanco – that, when fed to beef cattle under specific conditions, results in less ammonia gas released as a by-product of their waste. It’s the first time the agency has approved a drug that reduces gas emissions from an animal or its waste. Studies of Experior indicated that the product partially reduces ammonia gas emissions from manure from an individual animal or a pen of animals in semi-controlled conditions in enclosed housing. The evidence did not demonstrate any health benefit or performance advantage in beef cattle, such as weight gain or feed efficiency, as a result of receiving Experior, although no negative effects were noted. Multiple studies indicated that Experior is safe when administered to beef cattle. Meat from beef cattle treated with Experior is safe to eat, and no withdrawal period is required when beef cattle are dosed under the FDA-approved conditions described on the label, the agency said in a release.

Senator Thune Focusing on Passing Farm Bill

Senator John Thune says one of his priorities as the new Senate Majority Whip is passing a new farm bill.

He discussed what it could take to get the legislation passed during a conference call today. Thune says on thing holding back the bill is stricter work requirements for food stamps, in a version passed by the House.

However, Thune doesn’t believe enough Senate Democrats will cross the aisle to give them the 60 votes they need. He says in order for it to pass before congress adjourns next month, the House might need to make some concessions.

“My guess is if we’re going to get a bill, at some point the House is going to have to acknowledge they’re not going to get everything they want, and work with us on something that can actually get 66 votes in Senate, a majority of the House and signature by the president,” said Thune.

Thune says there have been talks in the house about pushing the vote to next year, but that would require congress to pass an extension of the current bill.

Trump signs 'landmark' legislation to battle opioid abuse

President Donald Trump today signed into law “landmark” legislation to counter an epidemic of opioid abuse that is killing tens of thousands of Americans every year, causing heartbreak across the country, including in the U.S. heartland.

Trump called the legislation he was signing, in the East Room of the White House, “the single largest bill in our history” to fight drug addiction. The room was packed with lawmakers, Cabinet members, reporters and a score of executives whose companies – including Walmart, Google, Amazon, Signa and CVS Health – have put together ambitious programs to combat the epidemic.

Among other things, the legislation makes it easier for Medicaid patients to get treatment for drug addiction. It increases policing of the mail that accounts for much of the opioid trade and supports research to find less addictive drugs for pain management. Additionally, it includes provisions aimed at preventing “doctor-shopping” by improving prescription drug monitoring by the states.

The Senate passed the opioids package by a vote of 98-1 while the House approved its version 393-8. The congressional action came nearly a year after the Trump administration declared the opioid crisis a public health emergency, an action that set priorities in tackling the epidemic. Congress has allotted more than \$8 billion this year to combat drug abuse. Still, experts say that isn’t near enough to deal with the crisis.

In a release, Zippy Duvall, the president of the American Farm Bureau Federation, thanked Congress for passing the Support for Patients and Communities Act with unprecedented bipartisan support and the president for signing the legislation, noting that “opioids are stalking rural America.”

“Our farmers and ranchers once thought addiction was predominantly something cities had to deal with,” Duvall said. “Sadly, we know now that opioids are taking the lives of Americans from all walks of life. And unlike years ago, rural America is showing some of the highest rates of opioid addiction anywhere.”

The Centers for Disease Control and Prevention says that in 2017 more than 72,000 Americans died of drug overdoses, up almost 7 percent from the previous year. Opioids accounted for more than 49,000 of those deaths, the CDC says.

Still, there are signs that the attention focused on the crisis may be producing results. New preliminary data published this week by the National Center for Health Statistics showed overdose deaths nationwide, while still exceedingly high, declined in the months leading up to March 2018, the most recent month for which data was reported.

"The seemingly relentless trend of rising overdose deaths seems to be finally bending in the right direction," Health and Human Services Secretary Alex Azar said of the new report. "Plateauing at such a high level is hardly an opportunity to declare victory. But the concerted efforts of communities across America are beginning to turn the tide."

Consumers Want More Butter

A dairy checkoff leader says the holidays help move a lot of butter. Katie Hepler with Dairy Farmers of Wisconsin tells Brownfield butter consumption is on the rise. “Since 1970, you know we’re really just going past that per-capita consumption now. In 2016, (which) was the last readout, consumers averaged about five-point-seven pounds of butter per person per year.”

Hepler says consumers really are coming back to butter after many years of false negative health claims, and they are focusing on that trend to sell even more. “It’s cool to eat full-fat again. You know, it’s better for you than low-fat and more carbs if you will, so we’re tapping into this trend right now and desire and demand from consumers.”

Research shows that the type of fat in butter might be good for the heart and other organs. Hepler says Americans are eating more butter now than they have in 47 years.

Is Ag Too Complex For Artificial Intelligence?

Machines will be superior to us in translating languages by 2024 and writing school essays by 2026, based on University of Oxford research.

Within 10 years, computers will be better at driving a truck, and by 2031, they will be better at selling goods and, thus, might put millions of retail workers out on the streets. Farmers shouldn't be all that surprised as tractors have been driving straighter rows than they can for more than a decade.

Don't be too quick to turn over the keys of the farm to a silicon-based life-form just yet. Agriculture at the ground level might well be the final frontier when it comes to industries to be conquered by AI.

In simple terms, agriculture is complex. How complex, you ask? Mother Nature and agriculture have already set one of the planet's largest computing companies, numerous high-profile agricultural firms and associated industry specialists back on their heels when it comes to AI.

In 2011, IBM through its research and development headquarters in Haifa, Israel, launched what was supposed to be a groundbreaking agricultural cloud-computing project. The project had one goal: to take volumes of academic and physical data sources from an agricultural environment and turn those ones and zeros into easy answers for farmers. In other words, the Big Blue computer would outthink and outflank Joe Farmer in making critical, real-time decisions for a growing crop.

It was the consensus of many IBM project team members that it was entirely possible to "algorithm" agriculture. Take it a step further and algorithms could solve any problem.

Why shouldn't they think that? IBM's "learning" supercomputer system named Watson competed in the game show Jeopardy against former winners and organic-based life-forms Brad Rutter and Ken Jennings. During the game, Watson wiped the floor as AI notched its first high-profile victory over human intelligence.

In the years that followed, Watson cracked the code that led to groundbreaking achievements in medicine. Behind the scenes, IBM's agricultural computing projects were being cut back or shuttered entirely.

Conclusion: Mother Nature wiped Watson's floor and showed even the complex field of medicine is easier to compute than a single field in agriculture.
















Musk's prediction that AI will dominate agriculture by 2030 might be way off for two reasons:

Too many variables. Floods, heat and hail along with bugs and diseases, herbicide-resistant weeds and just bad timing, can turn a good crop bad with the drop of a hat.

Too little data. For AI to work, it must be fed mountain after mountain of data. Good data. As much as the precision ag industry would like to pat itself on the back for all of its advances, the truth is most of the practical field-level digital data collected to this point has as many holes in it as a slice of Swiss cheese.

Despite all this, the insertion of AI into agriculture is still coming. These are machines. They do not sleep. They do not get tired, and they will keep getting smarter and faster. Those who embrace AI, stay ahead of it and harness its power will likely benefit immensely. Those who don't will likely be out on the street with the McDonald's workers.

Weather

DAY		DESCRIPTION	HIGH / LOW	PRECIP	WIND	HUMIDITY
TONIGHT NOV 23		Mostly Clear	--/27°	10%	NW 11 mph	97%
SAT NOV 24		Cloudy	33°/16°	10%	NNW 13 mph	86%
SUN NOV 25		Partly Cloudy	23°/12°	0%	NNW 18 mph	67%
MON NOV 26		Mostly Sunny	23°/7°	0%	NNW 12 mph	67%
TUE NOV 27		Partly Cloudy	23°/10°	0%	NNW 9 mph	60%
WED NOV 28		Partly Cloudy	26°/17°	20%	SE 11 mph	62%
THU NOV 29		AM Snow Showers	30°/21°	30%	SE 14 mph	75%
FRI NOV 30		Mostly Cloudy	31°/23°	20%	SE 10 mph	92%
SAT DEC 1		Snow Showers	34°/23°	50%	E 13 mph	86%
SUN DEC 2		Cloudy	28°/14°	20%	N 13 mph	88%
MON DEC 3		Snow Showers	22°/10°	40%	NW 16 mph	86%
TUE DEC 4		AM Snow Showers	20°/9°	30%	NW 12 mph	82%
WED DEC 5		PM Snow Showers	20°/10°	40%	NW 12 mph	79%
THU DEC 6		Mostly Cloudy	22°/10°	10%	WSW 12 mph	86%
FRI DEC 7		AM Snow Showers	22°/9°	30%	WSW 14 mph	87%

Climate Corp’s new partnership set to streamline crop reporting

The Climate Corporation has partnered with Farmers Mutual Hail Insurance Company of Iowa to help farmers get the most out of field data when making crop insurance decisions.

Clint Schaffer with the Climate Corporation tells Brownfield any farmer with the FieldView Platform within Farmers Mutual’s coverage area will be able to streamline crop insurance data for 2019. “The benefit to farmers is driving new and innovate ways that they can use their information that they’re collecting to really drive better decisions or manage their risks.”

Schaffer says Climate Corporation is also open to partnering with other companies, including crop insurance, to advance digital ag innovations for farmers.

While headquartered in Iowa, Farmers Mutual services more than 40 states including the entire Midwest.

Market Environment Commands a Marketing Plan

Harvest is wrapping up, most farmers this year have stored as much of their crops as they can and now wait for higher prices to market this year's production.

As part of its advisory service, Cargill uses this time of the year to sit down with customers and go through the past year's marketing decisions to determine what they could do differently the coming year.

Carrie Johnson, Cargill Ag Marketing Services (CAM) product line leader, says a goal-setting grain marketing strategy for farmer-customers helps to evaluate success and determine changes that need to be made for the coming year.

"We tilt the focus to what is the goal for each farm. Because each marketing plan should be individualized to that farm," Johnson says.

When setting goals, farmers should consider whether they want to expand their operations, retire, pay for their children's education, and any other business decisions and needed returns to accomplish those goals.

"This does more than just defines success," Johnson says. "This sets the business plan for grain marketing."

Catching Opportunities

From a behavioral perspective, although profitability in the corn market might be reached at \$3.75 per bushel, there are times when farmers have the tendency to not pull the trigger, Johnson says.

"So what we are saying is to use discipline by setting goals and know what it takes to reach them. If \$3.75 is a good number for your farm, have offers out there. Let's have strategies in place that we take advantage of those profitable opportunities in this low price environment."

Being Helpful

"It's important as advisors to know what pricing opportunities are out there for our customers," Johnson says. "We like to say that we really work toward profitability, but the Chicago Mercantile Exchange doesn't care what the farmers' breakeven level is necessarily."

Because of the volatility in the market and sideways price movements, farmers should have offers in place to be able to move quickly, she says.

Cargill Strategy

The company's CAM services approach of putting together a total portfolio grain marketing plan takes into consideration the market environment.

"When you are working through weather markets, farmers have to figure out what old crop needs to be moved out of the bins, while focusing on growing crops. We help them determine whether price floors should be put in place that can leave the upside open with crop-weather issues. Do we use collars and three-way strategies? These are all considerations that we can use during those weather market times," Johnson says.

Timing

Perhaps this year, more than ever, a successful grain marketing plan will come down to timing, Johnson says.

"At CAM, watching the markets is what we do everyday. But, for our farmer-customers, we are looking at the longterm and not looking to hit the top of the market everytime," Johnson says.

She added, "When we had some profitable levels, earlier this year, we were pretty aggressive and that turned out to be the right move for our customers."

By selling earlier, this has allowed CAM to work through the overhanging issues like the U.S., China trade tariffs, a large U.S. crop size, etc.

"There are some real price supportive global consumption stories out there that are more likely to play out in the back half of the year," Johnson says.

So, having that grain marketing plan in place, puts you in a spot that you don't have to make knee-jerk decisions today, she says.

High Production Costs and Low Commodity Prices Forcing Dairy Farmers Out of Business

Agribusiness experts say high production costs and low commodity prices are forcing more dairy farmers out of business in Iowa and other states.

Experts say the global flood of milk has depressed prices to about half what they were in 2014, and they still haven't hit all-time lows.

The Des Moines Register reports that Iowa is the nation's 10th-largest milk producer, with 1,150 dairy farms, and it's lost about 80 dairy operations this year – nearly 7 percent.

University of Wisconsin-Madison dairy policy analyst Mark Stephenson says U.S. production has continued to increase despite the large number of dairy cows being culled from herds. He says the U.S. needs a significant increase in exports to bring about a dramatic improvement in prices – something he doesn't see “on the horizon.”

Fine-Tune Your 2019 Marketing Plan

For corn. This year, I noticed that over the last five years, corn prices have averaged about 70¢ per bushel lower than in the 10-year study. The highs and lows are also coming in earlier. During that five-year span, the best month to sell cash corn and get new-crop hedges on is April. (In the five-year pattern before that, it was May.) Likewise, the five-year pattern says the lows come in September, while the 10-year seasonal pattern is for an October low. In the last few years, selling cash corn in April through June and avoiding September and October has been the right merchandising and financial move.

For soybeans. The five-year average price for soybeans is about 50¢ per bushel less than the 10-year average. Unless something changes in trade relations with China, it may stay that way. The lower highs and lows the last five years is worth noting.

The five-year pattern has been for the soybean market to peak a little earlier. In the last five years, April and May have been the ideal time to get cash soybeans sold and new crop hedged. The lows have consistently come in September. The 10-year soybean seasonal pattern was for a June high and the low to develop in September.

If you look at both the five- and 10-year charts, then holding soybeans in July has been a high risk, high reward proposition. In contrast, holding cash soybeans or waiting to hedge your new-crop soybeans until August has been a disaster.

For corn, the five- and 10-year charts are very similar. In even-number years, the highs usually come in April and the lows in November. In the odd-number years, the highs are not quite as high. The highest price is usually in May and the low is in September. Following an October bounce, a double bottom often develops in November.

Over the last three years, if you sold cash corn in April and May and put on new-crop hedges in April and May, you did a good job of corn marketing. If you used the hold-and-hope marketing method and held on until September or October, it was a big marketing and financial mistake.

When you look at soybeans, the prices and the patterns are quite different. The average high in the even-number years is about 80¢ per bushel higher than the odd-number years. The yearly price range from high to low in even-number years is right at \$1.50 per bushel. In the odd-number years, the price range is down to less than \$1 per bushel. In the even-number years, selling ahead in April is the right move, and the low month pretty consistently is October. In the odd-number years, the high is in June and the low is in September.

In almost every year, holding cash soybeans through the end of July and during the month of August has been a huge mistake.