

Ag tech innovations expand as farms continue search for labor savings

The intersection of increasing labor shortages, higher pay for agricultural workers, and new attention to employee safety is highlighting efforts to bring labor-saving technologies to specialty crop fields.

But that's not to suggest the demand for such innovation is new.

“Everyone talks about the pandemic, but I have not seen evidence that it accelerated what was already rapid developments,” said UC Davis ag economist Daniel Sumner. **“Farm labor is more expensive and harder to secure and, if the pandemic did not make that worse, it introduced additional concerns of worker health and safety, which added costs per worker.”**

In an industry with other increasing pressures, Walt Duflock, vice president of technology at Western Growers, said labor currently has the most urgency.

“The three problems, since I was a lad, have been labor, water and food safety,” he said, **“and all you do is reshuffle the order.”**

A 2020 [report](#) from the Department of Agriculture's Economic Research Service found long-term labor cost increases are prompting producers to "select less labor-intensive crops, invest in labor-saving technologies, and develop strategies to increase labor productivity." Several USDA agencies including the Agricultural Research Service, National Institute of Food and Agriculture, and Rural Development have programs aimed at addressing the need for new technologies and the infrastructure to operate them.



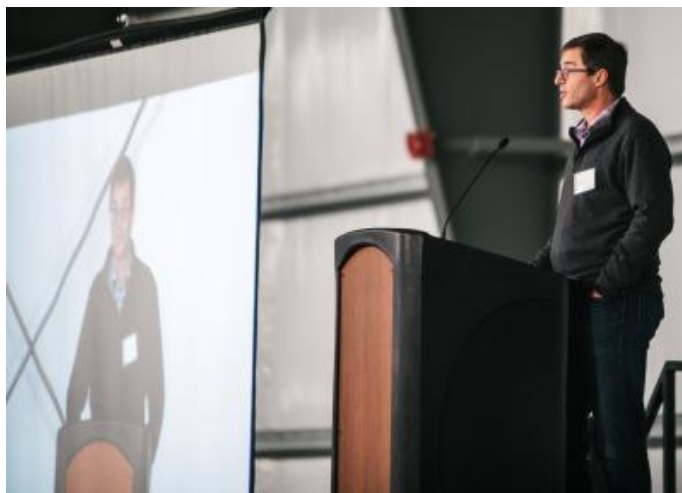
FarmWise Titan, a semi-autonomous weeding robot (Photo: FarmWise)

Better pest management and robotic arms for picking winegrapes are examples of innovations that reduce dependence on human hands. Duflock said the biggest advances have been with things that aren't fragile — tree nuts that can be shaken off the branches, for example. He said the pace of ag tech has accelerated over the years, bringing artificial intelligence and large data sets into the world of specialty crop production. A couple hundred startups are launched in agriculture every year now, Duflock said.

One of those is FarmWise, created by Seb Boyer and Thomas Palomares in 2016. They had an idea to use technology, automation, and artificial intelligence to help specialty crop growers reduce the number of people required to weed. To better understand the industry and develop their product, they needed to hear from farmers with firsthand knowledge of the specific challenges in their fields. That's where the Western Growers Center for Innovation and Technology was able to help.

The Western Growers Association created the center in 2015 to “help identify industry priorities, discover technologies to address those priorities, set up testing, facilitate industry feedback, and communicate progress to California, Arizona, and Colorado fresh produce farmers,” according to its website.

“They do a good job at, first of all, educating farmers around innovation and educating entrepreneurs around farming,” Boyer said. “And then at putting both of these worlds together.”



Walt Duflock at the Global Harvest Automation Initiative launch.
(Photo: Western Growers)

When it first opened, the Center hosted six startup companies but has since grown to more than 75, including FarmWise.

Boyer said the Center helped FarmWise quickly create connections with growers and then build trust.

“We were lucky to connect with the center quite early on,” Boyer said. “We could never reach the audience that we eventually reached without the center.”

The semi-autonomous weeder FarmWise developed relies on a robust set of data collected across many different fields, Boyer said, and has 12 robotic arms on the back for picking unwanted plants. Boyer said the company rolled out its product as a service that farmers would hire rather than a piece of equipment each operation would buy. Demand is growing. Lettuce was the first crop FarmWise trained its robot on, but Boyer said the company is expanding into broccoli, cauliflower, and other vegetables.

Boyer said his company chose to build its own machine as the platform for its artificial intelligence and hardware innovations. But the center recognized that as each ag tech startup has a particular problem it wants to focus on solving, a more collaborative approach could reduce the time spent separately developing general technologies that could be shared.

Enter the Global Harvest Automation Initiative, which Western Growers launched this year. Its objective is to create “tech stack” platforms that will then be available for startups to use when deploying their unique products. Duflock said the kickoff event in Tulare, Calif., in February,

attracted entrepreneurs from seven countries, and he expects the technologies that result will be deployed around the world.

“We’re going to help get the startups where they need to be,” Duflock said. One big hurdle they face is moving from a successful test product to a commercial rollout. “Part of it is, we’ve got to help (them) get to scale faster.”

Duflock said the combination of the tech stack platform and Western Growers’ deep network in the industry will give the selected startups a head start.

“This is the most relationship-based selling I’ve ever seen in ag,” said Duflock, who joined Western Growers late last year. “I knew that walking in, but it’s been confirmed times 10.”

The connections FarmWise nurtured through meeting growers and learning from them throughout the product development phase continue today.

“These were relationships that proved to be extremely crucial for us to succeed,” Boyer said.

Duflock said the entrepreneurs will be connected with “channel partners,” businesses and farm advisers who evaluate new

products and make suggestions to operators and growers who’ve gotten too overwhelmed by the steady flow of new technology to keep up with everything coming out. These partners could be critical conduits for new technology adoption and sales.

Western Growers will announce its selection for the first Global Initiative startups in May. The center is contracting with established agribusinesses for engineers and other subject-area specialists to develop the tech stacks. He expects the first iteration of the program’s tech stack, focused on hardware, to be available by midsummer. In another year or two, he said the second version will include systems integration, image libraries, source code repositories, and other features.

“We’ve just upped the ante,” Duflock said. “We’re majorly increasing the dollar flow and the deal-flow in ag tech.”

Ag research could stop the next coronavirus

COVID-19 has claimed the lives of nearly three million people worldwide. Scientists recognize the coronavirus was not the first dangerous microorganism to be passed from animals to humans and is likely not the last. Nearly one million viruses with the potential to infect humans are currently circulating in other animals, according to a United Nations research branch dedicated to biodiversity and ecosystems.



Attendees at the Global Harvest Automation Initiative launch in Tulare, Calif., gather around a self-driving wheelbarrow developed by Augean Robotics. (Photo: Western Growers)

As research institutions ramp up efforts to prevent the next pandemic, California’s Legislature is stepping into the battle with a bill that would bolster agricultural research in the Central Valley.

“A new approach with drastic changes is required to prevent any future pandemic,” said Senator Melissa Hurtado of Sanger, in describing Senate Bill 453 during an Agriculture Committee hearing in March. “California leads the country with its innovation and technology and should remain on the forefront of this healthcare fight, which starts by taking a special look at ground zero for emerging infectious diseases in the state of California.”

The bill would provide CDFA with \$700,000 annually to establish a research center on biosecurity and emerging infectious diseases related to agriculture with the goal of mitigating the effects of diseases on meat, poultry and other agricultural production. The program would be housed at the Jordan Agricultural Research Center at California State University, Fresno, and seek federal and private funding as well.

CDFA already investigates and responds to animal and plant pests and disease outbreaks throughout California, and the state provides competitive research grants targeting some of these issues. But the new Fresno State center would be the first to focus on infectious diseases in the nation’s most productive farming region.

Long before the pandemic, a growing international research consortium known as One Health was targeting zoonotic diseases through a collaborative approach that combined public health science with veterinary medicine and a broad swath of other research areas. Several years ago, the University of California, Davis established the One Health Institute to better predict outbreaks, though the institute’s projects tend to focus on wildlife rather than building on the California agricultural research that has been a cornerstone of the campus.



Sen. Melissa Hurtado, D-Sanger

Hurtado’s measure adds to \$45 million in federal funding that was approved as part of the \$1.9 trillion American Rescue Plan in March. The provision establishes a national center for tracking disease outbreaks within the U.S. Fish and Wildlife Service and will help with early detection and rapid response for outbreaks, particularly in wildlife trafficking. Hurtado said the national center is designed to engage with state agencies and regional research hubs like the one she is proposing.

“By establishing a center of research at the California State University, Fresno—and really leveraging the many other organizations and agencies that we are privileged to have in our region—we’ll be able to establish what I think is a much-needed and vital research center that’s right here in the Central Valley of California,” said Dr. Rais Vohra, Fresno County’s interim public health officer. “It will serve the people of the Central Valley and be able to give our scientists and our clinicians very early and important information about any future pandemic threats that can come along.”

The bill has gained broad support among the valley’s Republican and Democratic lawmakers.

“When we talk about resilience more broadly, we need to think about our food and ag in the form of increasing our resilience as well,” said Sen. Susan Eggman of Stockton, adding that she would like to see more research centers like this throughout the valley to study diseases

while also “caring for our food and making sure California stays on the cutting edge of agriculture.”

The bill passed with unanimous approval and will be heard Wednesday in the Education Committee.

Biden infrastructure plan hits major rural needs, but short on detail, ag funding

President Joe Biden’s \$2.3 trillion infrastructure plan would address some long-standing needs in rural America with substantial new funding for roads, bridges, waterways and broadband, but the plan doesn’t provide the major boost in farm conservation spending many ag groups say is needed to get more farmers to adopt climate-smart practices.

Rural electric cooperatives also would be a major beneficiary of the package because of provisions that would help them transition to lower-carbon energy sources and give them an advantage over private internet services when building out broadband systems in rural areas. Forest management also is prioritized in the bill, both in national forests managed by USDA’s Forest Service and on state and locally controlled lands.

“We would give the administration an ‘A’ for being really responsive and listening to a lot of the things that Farm Bureau and our coalition partners like Rebuild Rural put on the table,” said Andrew Walmsley, a congressional policy director for the American Farm Bureau Federation. He praised, for example, the proposed spending on transportation infrastructure, broadband and research.



President Joe Biden (Photo: Adam Schultz / Biden for President)

“We’re a little more hesitant and would like to see details that obviously aren’t in the plan around some of the climate-smart ag or the zero-emission talk,” he said.

The package — officially dubbed the American Jobs Plan — is mostly an extended outline at this point, and is particularly thin on detail when it comes to some of the ag-specific provisions. For example, \$1 billion is allocated for “agricultural resources management and climate-smart technologies that will open new market opportunities for farmers.” There is no further explanation for what is intended with that spending.

White House officials have conducted at least one off-the-record briefing for rural policy advocates, but neither USDA nor the White House responded to questions from *Agri-Pulse* about the spending plans.

Agriculture Secretary Tom Vilsack is not one of the five Cabinet members that Biden has assigned to sell the plan to the public and to Congress. Instead, the five members of the “Jobs Cabinet” are Transportation Secretary Pete Buttigieg, Energy Secretary Jennifer Granholm, Housing and Urban Development Secretary Marcia Fudge, Commerce Secretary Gina Raimondo and Labor Secretary Marty Walsh.

“It was a little surprising” that Vilsack wasn’t included, Walmsley said. “He’s probably one of the best spokesman and advocates for this administration and resonates with a lot of folks.”

The plan uses a broad definition of infrastructure that goes well beyond transportation and energy. Some \$621 billion is proposed for transportation, including \$174 billion for electric vehicles, and another \$100 billion for electric grid and power infrastructure. By comparison, \$400 billion is allocated for home health care facilities and \$300 billion for manufacturing support.

Mike Steenhoek, executive director of the Soy Transportation Coalition, applauded the transportation funding proposals, but expressed concern that expanding funding in areas such as home health care and housing would draw criticism.

“Many would argue that needs to be a separate discussion and let’s instead focus more exclusively on some of what are widely regarded as the infrastructure components of our economy that do need to be invested in,” he said.

And Biden’s proposal to fund the plan with corporate tax increases, including raising the corporate tax rate from 21% to 28%, is a non-starter with Republicans.

The Senate Agriculture Committee’s top Republican, John Boozman of Arkansas, told an Arkansas TV station last week he thought the bill would not get a single Republican vote. But it may not need one.



Sen. John Boozman, R-Ark.

Monday evening, the Senate parliamentarian ruled Democrats could use the budget reconciliation process again in fiscal 2021 by revising the FY21 budget resolution they used to enact the \$1.9 trillion economist stimulus package in March. Budget reconciliation bills need only a simple majority to pass the Senate.

Some congressional Democrats will have different ideas about how the plan should be funded. **For example, Sen. Joe Manchin, D-W.Va., has said he would oppose increasing the corporate tax above 25%.**

Rep. Kurt Schrader, D-Ore., said he could support some of Biden’s tax increases.

“As you get into who’s paying for what, you want to make sure that everyone pays their fair share, it’s not burdensome to the middle class, and it’s not all stuck on successful businesspeople,” he told *Agri-Pulse*.

Here is a look at how major policy areas are addressed in the package:

Agriculture

The \$1 billion proposed for “agricultural resources management” is billed as a way to position U.S. agriculture to “lead the shift to net-zero,” a reference to the administration’s goal of making agriculture carbon-neutral by 2050.

The plan also calls for spending an unspecified amount on drought resilience.

Senate Agriculture Chairwoman Debbie Stabenow, D-Mich., had expressed interest in using a climate and infrastructure bill to ramp up funding for conservation programs heading into the writing of the next farm bill. The president’s plan would make relatively modest steps in that direction, but would appear to leave the door open to using USDA’s Commodity Credit Corp. spending authority to fund a carbon bank.

The plan earmarks \$180 billion for research and development across the economy. Biden wants to increase funding for research at USDA through the Agricultural Research Service, National Agricultural Statistics Service, Economic Research Service, and the National Institute of Food and Agriculture, which provides research grants to colleges and universities. The plan also calls for more research and development funding to land grant universities, historically Black colleges and universities and tribal colleges and universities.

Broadband

The plan’s goal with the \$100 billion in broadband funding is to connect every American to high-speed internet, but the priority the plan puts on nonprofit systems is already drawing fire.

A White House fact sheet says the president wants to prioritize support “for broadband networks owned, operated by, or affiliated with local governments, nonprofits, and cooperatives — providers with less pressure to turn profits and with a commitment to serving entire communities.”

The plan also calls for removing barriers that prevent “municipally owned or affiliated providers and rural electric co-ops from competing on an even playing field with private providers, and requiring internet providers to clearly disclose the prices they charge.”

Shirley Bloomfield, CEO of NTCA -The Rural Broadband Association, which represents some 850 independent telecommunications companies, said the proposal was a good starting point. “It’s a pretty bold number,” Bloomfield told *Agri-Pulse*. “I think it will go a really long way to filling in the gaps that we already know that we’ve got in this country, and I think it will go a long way in looking at some of those other barriers.”

Transportation

The \$174 billion allocated for electric vehicle incentives and charging stations is the largest share of the \$621 billion earmarked for transportation. Some \$115 billion is proposed for roads and



*Mike Steenhoek, Soy
Transportation Coalition*

bridges, including repairs to the worst 10,000 smaller bridges. Another \$17 billion is earmarked for ports and waterways. Some \$80 billion would be allocated for passenger and freight rail improvements.

Steenhoek said funding for rural bridges and inland waterways would assist with the competitiveness of the soybean industry and agriculture in general.

“Specific mention of rural bridges, that’s something that’s very important to our industry and to farmers because that helps serve as the initial link in our supply chain that allows the ultimate transaction to occur,” he told *Agri-Pulse*.

Tracy Zea, president and CEO of the Waterways Council, said there are a lot of unknowns on how much of the \$17 billion would be used for inland waterways. “We’re going to have to compete for that \$17 billion with coastal ports, ferries, and land ports of entry,” he told *Agriculture Pulse*.

An infrastructure bill that passed the House during the last Congress included \$3 billion for inland waterways, and Zea expects to at least get that much. He said the money could help fund the replacement of locks and dams on the upper Mississippi River, a major priority for Midwest agriculture. Zea said the \$3 billion would pay for replacing Lock and Dam 25 near Winfield, Mo., and the La Grange lock and dam on the Illinois River.

Clean power

The plan calls for providing \$10 billion to rural electric cooperatives to retire “expensive and polluting” power plants and replace them with lower-emitting alternatives. That’s important, in part, because the Biden administration aims to create an Energy Efficiency and Clean Electricity Standard to incentivize the use of low-carbon power.

The administration also is proposing a 10-year extension and phase-down of an expanded direct-pay investment tax credit and production tax credit for renewable power sources. There's also \$100 billion earmarked in the plan for electric grid and infrastructure.

“As we plan for a future that depends on electricity as the primary energy source for a majority of the economy, strategic investments in grid modernization and energy innovation are critical,” said Jim Matheson, CEO of the National Rural Electric Cooperative Association.

Rural development

The plan earmarks \$5 billion for a new “Rural Partnership Program,” but the White House offered little detail on how the money would be spent except to say it would “help rural regions, including tribal nations, build on their unique assets and realize their vision for inclusive community and economic development. This program will empower rural regions by supporting locally led planning and capacity building efforts, and providing flexible funding to meet critical needs.”

In addition to the surface transportation funding that would benefit rural areas, there also is \$56 billion earmarked for updating drinking water, wastewater and stormwater systems “across Rural America.”

USDA would get \$15 billion to subsidize bio-based manufacturing programs through the Biorefinery, Renewable Chemical, and Biobased Product Manufacturing Assistance Program and the Business and Industry Guarantee Loan Program.

Forests

To deter wildfires in national forests, the Biden plan would provide the Forest Service with \$1 billion to back bonds issued on federal land restoration projects to speed large-scale restoration. There also is funding for USDA to fund "resilient forest restoration projects in the West for thinning, prescribed fire, and reforestation efforts."

The plan also calls for spending to make natural resources more climate resilient, in line with provisions of a bill called the Outdoor Restoration Partnership Act sponsored by Sen. Michael Bennet, D-Colo.

The bill would create an outdoor restoration fund that could pay for projects on both federal and nonfederal lands. “The need and priority planning are there; the last pieces of this puzzle are the dollars to get the work completed,” said Robyn Whitney, policy director for the National Association of State Foresters.

Redefinition of 'metropolitan' region could hurt rural areas

The White House Office of Management and Budget is getting pushback on a proposed change to what constitutes a metropolitan area of the U.S., with members of Congress and rural advocates arguing that the resulting increase in what are considered “rural” counties would make it harder for them to compete for scarce federal dollars.

The day before President Joe Biden took office, OMB issued a notice asking for comment on recommendations from a committee that examined the standards for defining metropolitan areas. The committee recommended that the “minimum urban area population to qualify a metropolitan statistical area [MSA] should be increased from 50,000 to 100,000,” the agency said, but downplayed the impact of the change.

“OMB establishes and maintains these areas solely for statistical purposes,” the notice said, and added — in italics for emphasis — *“In reviewing and revising these areas, OMB does not take into account or attempt to anticipate any public or private sector nonstatistical uses that may be made of the delineations. These areas are not designed to serve as a general-purpose geographic framework applicable for nonstatistical activities or for use in program funding formulas.”*

But Fred Ullrich, program director of health management and policy at the Iowa College of Public Health, said, “The notion that this is a purely statistical exercise is a little bit disingenuous.”



Fred Ullrich, Iowa College of Public Health

That’s because many federal programs have used the definition to calculate funding eligibility for programs such as Community Development Block Grants.

“There are a number of agencies that have really hung their hats on that particular nail,” he says, referring to the definitions. “And moving the nail without appropriate consideration of what hats are going to be dislocated, is not really desirable.”

“It really is grossly oversimplifying things, but this really is an issue of pies, and how pies get sliced,” he said.

Putting more areas in the “rural column,” says National Sustainable Agriculture Coalition Policy Director Eric Deeble, “could take resources away from more classically defined rural communities.”

The redefinition would shift 142 areas — and more than 250 counties — that were considered “metropolitan” into the “non-metro” category, increasing nonmetro America by nearly 19 million people, according to The Brookings Institution.

“Under the current standards, about 14 percent of the population lives in nonmetro areas; under the proposed standards, this figure would jump to about 20 percent,” according to the Brookings analysis.

“One can easily point to specific examples of federal programs that are likely to be impacted by any change to the MSA standards,” Brookings said. “The Department of Health and Human Services (HHS), for example, uses the MSA classification to tier reimbursements for Medicare services, offering hospitals higher reimbursement rates for inpatient operating costs in metro areas where wages are higher while granting higher reimbursement rates in nonmetro areas.”

A Brookings report from last fall identified 93 “rural-exclusive” federal development programs totaling nearly \$2.6 billion, including USDA’s Rural Energy for America Program and grant programs for telemedicine, farm labor and housing, water and wastewater disposal and socially disadvantaged groups.

Commenting on the recommendations, more than 400 organizations and governmental entities told OMB, “Widening this pool of ‘nonmetro’ communities would likely result in the current remote and distressed towns with very small populations competing with an even larger number of well-resourced former metropolitans for scarce federal funds.”

And the Independent Community Bankers Association said the competition for federal money likely would “further crowd out rural, remote communities.”

“The term ‘non-metro’ typically means ‘rural’ and much economic analysis and research is based on these delineations,” ICBA said. “Many believe that federal programs tend to emphasize larger populations when awarding federal dollars, making it more difficult for rural communities to identify, compete for and access federal funding.”

More than 50 members of Congress said in a letter to OMB that “losing an MSA designation could mean tens or hundreds of millions of dollars in lost federal grant money to communities already struggling to rebuild economic engines that have been damaged by our current COVID-19 crisis.”

Among the signatories: Georgia Democratic Rep. Sanford Bishop, chairman of the House Ag Appropriations Subcommittee, and Pennsylvania Republican Glenn “GT” Thompson, ranking member of the House Agriculture Committee.

Twenty-five U.S. senators — three Democrats and 22 Republicans, including ranking Ag Committee member John Boozman, R-Ark. — also objected, telling OMB that it should not “ignore” the impacts of the proposal.

The Rural Policy Research Institute, in its comments, said the changes “will impact health care policy and federal funds flows in other programs. For example, approximately 244 hospitals currently located in MSAs receive payment adjustments linked to an area wage index unique to their MSA. If they lose that designation, they would shift to an adjustment based on a rural wage index, most likely lowering their payment. Conversely, their move into non-metropolitan status will affect the wage index for all rural hospitals in their states.”

The Eastern Plains Healthcare Consortium, which represents nearly one-third of Colorado’s critical access hospitals, said the change would mean relatively prosperous counties in the state would be competing with smaller, poorer counties for the same pot of federal money.

“While we recognize that undesignated MSAs may lack necessary resources, the solution should not be on the backs of truly rural communities,” the consortium said. “The health entities that apply and or currently awarded federal grants are already struggling to remain open. The pandemic has only exacerbated viability. Increasing competition may result in stifled innovation and further jeopardize the sustainability of rural providers.”

Tamara Nelsen, executive director of the Minnesota AgriGrowth Council, which represents a broad cross-section of the agriculture and food industries, told OMB the shift would affect the Mankato area. **“When you’re working all day long to make sure you’ve got employees, processing, and agri-food humming along, and then you have another hit that just seems like it’s favoring more of a metro area than these very viable, robust rural areas, it’s kind of disconcerting,” she told *Agri-Pulse*.**

Keith Mueller is a professor and head of the Department of Health Management and Policy at the University of Iowa, and also is director of the Rural Policy Research Institute’s Center for Rural Health Policy Analysis.

Echoing comments made by many others, he said he understands the need to look at the definitions, which have not been changed since the middle of the last century. But the agency has not provided a good reason for why it decided to make the change the day before the arrival of a new administration.

“Yes, we ought to be looking at this,” he said. “Let’s now step back and take our time.” OMB’s press office did not respond to a request for comment on why the notice was published and whether it plans to put it on hold until more analysis has been done.

Blue Dogs fight for congressional clout as numbers dwindle

House Democrats hold a fragile majority in Congress, and party moderates, many of them representing rural districts, say they hold the ticket to maintaining the majority in 2022 because of their connection with Republican voters.

Although the Blue Dog Coalition's membership shrank after Democratic losses in 2020, Rep. Kurt Schrader, D-Ore., said the group still has clout in Congress.



Rep. Abigail Spanberger, D-Va.

“Frankly, when the swing is four, five, or six members, that’s all it takes. And we have 18,” Schrader told *Agri-Pulse*.

The Blue Dog Coalition, a group of House Democrats who pride themselves on fiscal responsibility, was formed with 23 members after the 1994 midterm elections when Republicans netted 54 seats in the House and eight in the Senate. That was the first majority for Republicans since the 1952 elections, according to the coalition’s website.

The group celebrated its 25th anniversary last February.

Rep. Abigail Spanberger, D-Va., joined the Blue Dogs when she got to Congress in 2019 because of Co-Chair Rep. Stephanie Murphy, D-Fla., who is originally from her district. She also was intrigued by the group's stance on fiscal responsibility and national security.

“Of course, I have a national security background and my area of personal interest, and one reflected in my district, is to make sure (Congress) is being responsible,” she told *Agri-Pulse*.

Blue Dogs Co-Chairman Tom O'Halleran, D- Ariz., said infrastructure, the rural health care system, and continuing to make sure the U.S. is the number-one economy in the world are among key policy priorities this Congress.

“We cannot allow China to dominate America, whether it's economic, military, or research, we have to be the dominant force in those areas,” O'Halleran told *Agri-Pulse*. He noted it's also "extremely important" that the coalition keep in mind civil rights issues such as voting rights.

The Blue Dogs are planning to launch a task force on strengthening rural America soon. Spanberger said high-speed internet for rural America has to be near the top of the priority list.

“If it's farming, if it's forestry, if it's manufacturing, people in rural communities who do not have access to broadband are economically disadvantaged and cannot compete,” she said.

The group now has 18 members, after 10 were picked off in the last election cycle, including former House Agriculture Committee Chairman Collin Peterson, D-Minn. The coalition's highest membership was 54 from 2009 to 2011.

Schrader said the Blue Dogs are putting their stamp on bills despite their smaller membership. For example, a House-passed bill aimed at expanding voting and changing campaign finance laws omits any taxpayer funding of campaigns at the behest of the Blue Dogs, said Schrader.

Rep. Sanford Bishop, D-Ga., the longest-serving Blue Dog and the chair of the House Ag Appropriations Subcommittee, said there is no question the group has leverage with House Speaker Nancy Pelosi, D-Calif. to achieve its policy goals.

“In the House, with the fragile majority we have there, every vote counts. It's important that the Democratic Caucus listen and be sensitive to some of the more moderate members of our caucus,” he told *Agri-Pulse*.



Rep. Sanford Bishop, D-Ga.

While there is a lot of excitement around “colorful and outspoken media-savvy” members who were elected from solid Democratic districts, the caucus would not hold the majority without the Blue Dogs, Bishop said.

After this week's passing of Rep. Alcee Hastings, D-Fla., Democrats have 218 seats versus 211 Republicans, a number that will grow to 212 once Louisiana Republican Julia Letlow is sworn in.

The Blue Dogs will likely be important to keeping critical swing districts blue in 2022. **The Blue Dogs "reflect a very important part of Main Street America that we see throughout the country, and certainly in our rural areas, at least for today," Rep. Jim Costa, D-Calif., told *Agri-Pulse*.**

US scrambles to save organic ag trade relationship with Mexico

New regulations in Mexico threaten to disrupt more than \$100 million in organic food trade with the U.S., and the Biden administration has less than three months to address the situation before the requirements take effect.

The law could tear down Mexico's acceptance of U.S. organic standards — one more rip in the fraying trade relationship between the two countries — but staffing shortages and travel difficulties during the pandemic are complicating matters, according to U.S. government sources who asked not to be named because talks between the countries are ongoing.

"We've got to figure this out," one government source told *Agri-Pulse*, but also stressed that time is short.

The U.S. is still shipping organic milk, spinach, carrots, apples and pears south of the border with relative ease, but only because the USDA and the Office of the U.S. Trade Representative convinced Mexico to temporarily delay implementation of the law that would force U.S. organic producers to get separate organic certification from the Mexican government or Mexican certifiers before they could sell their products to Mexican buyers.

Mexico did not officially notify the U.S. that it planned to implement the regulations. It was in mid-December that the U.S.-based Organic Trade Association was tipped off that Mexico's Health, Food Safety, and Quality Agency, or SENASICA, would begin mandating that all U.S. organic exports would need a separate certification to show that they conformed exactly with Mexican standards. In other words, U.S. standards would no longer be deemed equivalent or sufficient.

The regulations were to take effect Dec. 28, threatening U.S. organic food exports that totaled \$117 million in 2017, according to the latest U.S. data. Mexico exported \$278 million worth of organic commodities to the U.S. in the same year.

USDA and USTR reached out to Mexico and were successful in convincing the government to extend the implementation deadline to June 26, but even that won't likely give the U.S. enough time to prevent trade losses.

"This requirement is concerning due to the unrealistic timeline for certification, added financial and personnel burdens, and lack of guidance from SENASICA," the Organic Trade Association said in a March 22 letter to USDA and USTR. "We understand that USDA has been working to gather additional clarity from the Mexican government as well as extend the compliance deadline for organic exporters."

Mexico has not yet agreed to a U.S. request to further extend the deadline for implementation — the Ley de Productos Orgánicos (LPO) — according to a U.S. government official.

And if it is not extended and implemented as it stands, the U.S. organic sector and U.S. exports will take a hit, says OTA.

“If this policy is enforced, U.S. organic producers will experience significant trade disruptions as certification can take a year or more for organic companies to become certified to a new organic standard,” OTA said in a section of a separate letter to USDA and USTR, in which several farm groups complained about a variety of trade irritations with Mexico.

“These un-notified technical barriers to trade will increase costs of exporting to Mexico that include significant staffing expenses, paperwork, and new certification and inspection costs.”



OTA asked its members how much they expected the new Mexican regulations to cost them annually. The answers ranged from \$100,000 to more than \$1.5 million, but there is still a lot of uncertainty in the industry.

“Both certifying agencies and exporters are confused, unsure of total certifications costs and scope, and have very little time to come into compliance with this new requirement,” Alexis Carey, OTA's associate director of international trade, said. “It is our understanding that the USDA (Foreign Agricultural Service) office in Mexico City and (USDA’s National Organic Program) are attempting to gain further information in writing from SENASICA.”

One potential motive behind Mexico’s intention to terminate its recognition of U.S. organic standards is that the U.S. does not reciprocate. Mexican producers must get certified by a USDA-approved agent before their products can be marketed as U.S. organic.

USDA’s Agricultural Marketing Service says it is still working with SENASICA on a full equivalency agreement that treats both countries equally, but that assurance may not be good enough anymore.

Nevertheless, AMS says that there are 24 USDA-accredited certifiers operating in Mexico to meet the certification needs of more than 1,600 operations that export organic commodities to the U.S.

And those Mexican operations that have been certified continue to ship crates of organic avocados, blueberries, strawberries and more to U.S. buyers.

And while the United States has not threatened to terminate its certifying operations in Mexico, it is one potential outcome, according to U.S. government and industry sources.

Furthermore, concerns have been mounting in USDA over Mexico’s ability to enforce its own organic standards, a U.S. government official said. USDA has been unable to conduct audits of Mexico’s organic program for more than a year during the pandemic, and that has heightened those concerns, the U.S. official said.

Nevada grazing permit decision has ranchers concerned

Ranchers and environmental advocates are keeping a close eye on a decision by an Interior Department administrative law judge that found the Bureau of Land Management did not adequately analyze the impacts of grazing on greater sage-grouse habitat in Nevada.

The decision, which found fault with a BLM environmental assessment prepared to comply with the National Environmental Policy Act, calls into question an “outcome-based grazing” initiative announced in 2017 and implemented in approval of grazing permits near the end of the Trump administration. The judge’s decision, which can be appealed, stayed the approval of new permits on about 900,000 acres of habitat in Elko County, Nevada.

Jon Griggs, president-elect of the Nevada Cattlemen’s Association, called the decision “very disappointing” and said the Winecup-Gamble Ranch, whose allotments comprise the majority of the land affected, “put together a heck of a coalition to write that permit,” including The Nature Conservancy, Nevada Department of Wildlife and the Fish and Wildlife Service.

“It was well thought out, it fixed a lot of things about their permit that made it impossible for them to graze sage-grouse habitat correctly,” he said. BLM permits usually come with “hard and fast dates that can't easily be changed,” when grazing should be based on the ecological conditions on the ground, he said.

The decision leaves in place the existing permit regime, meaning the number of cattle grazing on the allotments won’t change for now. But the decision also blocks new projects on the land including 87 miles of pipeline, 16 miles of fencing, 55 water tanks and 10 wells.

Granting a stay of BLM’s decision “would prevent implementation of the extensive amount of range improvements authorized in the final decision, which have many immediate negative impacts, including those recognized as major threats to sage-grouse,” ALJ Harvey Sweitzer said. “Those major threats are fragmenting sage-grouse habitat and exacerbating the substantial nonnative, invasive species problem by spreading those species through surface disturbance and redistribution of livestock.”

Griggs said he doesn’t know of similar challenges, but that based on how this case turns out, “there sure could be.”

Attorney Brian Ertz, litigation director at Wildlands Defense, which challenged the decision, called it significant because of the Trump administration’s move to “get a bunch of grazing decisions out in the last days, and so there's going to be an opportunity for Interior to really scrutinize what we obviously argue are illegal decisions in Nevada.”

An Interior spokesperson told The Associated Press the department “is reviewing actions the Trump administration took to undermine carefully constructed land management plans to help conserve sagebrush habitat.”

The sage-grouse was not listed as threatened or endangered under the Endangered Species Act after a series of federal-state agreements were reached in 2015 to conserve sagebrush habitat. Ertz pointed to the language in the ALJ's decision. The judge found that BLM did not examine a reduced-grazing alternative despite damage on the allotments to sage-grouse habitat.



Kaitlynn Glover, PLC

BLM reduced the allowable Animal Unit Months by 30%, which it said would reduce grazing pressure on degraded riparian areas. But that reduction is “illusory,” Sweitzer said, because the AUMs authorized by BLM would still be higher than the average annual actual use.

“And because they're failing to meet standards and guidelines in riparian areas, which is critical sage grouse habitat, the [Federal Land Policy Management Act] and [BLM] sage grouse management plans compel them to do something about it,” Ertz said. “But as the ALJ points out, they weren't doing anything about it,” except on paper.

“Despite the failures to meet the standards and guidelines and serious riparian area problems caused by grazing, [BLM’s decision] actually increases AUMs by authorizing amounts more than 30 percent greater than average annual, actual use,” Sweitzer said. “This increase in AUMs is never addressed in the [Environmental Assessment] nor are the impacts of the increase.”

Kaitlynn Glover, executive director of the Public Lands Council, which represents ranchers, said the decision comes as the Biden administration looks closely at sage-grouse management plans adopted during the Obama administration and then altered by the Trump administration to allow more activities in sage-grouse habitat.

“There is an ongoing discussion at the Department of the Interior and USDA as well, about the 2015 plans,” she said. “Litigation is ongoing on the 2019 plans. And the Biden administration is trying to figure out how to proceed in this space. Certainly decisions that implicate grazing and sage grouse are going to be top of mind for us.”

Both she and Griggs contend that outcome-based grazing is important because it allows ranchers to adaptively manage where their cattle graze, depending on the ecological conditions.

“I would want to make sure that this kind of decision, or that these kinds of allegations, whether they're in this case or not, are not going to compromise the flexibility” of resource managers and permittees to respond to changes on the landscape such as flooding or droughts, she said. In some cases, Griggs said, that may mean increased grazing in some areas to reduce fuel loads.

“Some of these years we've had in the past five, where we've had record rainfall in the spring, and then record invasive annual plants as a result, it would be to everybody's benefit for them to graze more, to try to reduce those hazardous fire fuel load,” Griggs said.

And Liz Munn, The Nature Conservancy's Nevada sagebrush ecosystems program director, said the goals of the plan “are really trying to make sure there’s broad uplift across the landscape,” with a significant emphasis on allowing “growing season rest” in both upland and lowland areas. As for the projects criticized by the judge, she said they're “part of a package to help meet those landscape-scale objectives.” Addressing questions about the number of livestock, she said, “The number of domestic livestock is not always as important as how those domestic livestock are managed.”

TNC helped facilitate a collaborative effort led by the ranch to develop the plan.

Ertz, however, called outcome-based grazing “a fantasy” because BLM fails to enforce the standards and guidelines called for in managing habitat. “Outcome-based ranching — to the degree that it fails to require a meaningful reduction in numbers, where impact occurs — will be a failure,” he said.

Katie Fite, director of public lands at Wildlands Defense, said in an email that “many BLM grazing decisions dance around the actual use issue when analyzing alternatives. It often is not clear in NEPA analyses whether BLM is analyzing the effects of the number of cows and sheep on paper, or the actual use number of livestock — the stocking rate that has caused the impacts to lands, waters [and] habitats that BLM documents in [its] land health assessments.”

News Briefs:

ARS points to longer droughts, less rain in the West over the last 50 years. A new report from the Department of Agriculture’s Agricultural Research Service and the University of Arizona says dry periods have been longer and annual rainfall has decreased over the course of the last 50 years. ARS says across most of the western U.S., total annual rainfall has decreased by an average of about four inches over the last half-century, and the dry period of each year has increased from 20 to 32 days across the West. “The greatest changes in drought length have taken place in the desert Southwest. The average dry period between storms in the 1970s was about 30 days; now that has grown to 45 days,” said Joel Biederman, a research hydrologist with the ARS Southwest Watershed Research Center in Tucson, Ariz. According to ARS, there were “notable exceptions” to the drought patterns in parts of Washington, Oregon, Idaho, Montana, Wyoming, and the western parts of North and South Dakota. In those areas, “the researchers found some increases in total annual rainfall and decreases in drought intervals.” A critical aspect of the study is the use of actual rainfall data from 337 weather stations spread across the western United States. Biederman contrasted this with the more common use of “gridded” data, which relies on interpolations between reporting stations and tends to smooth out some of the variability revealed by this work.

Guardian Agriculture raises \$10.5 million for crop protection drone service. A relatively new player in the crop protection space secured several million dollars in financing from some of the nation’s largest agribusiness firms after developing what they describe as the “first-ever integrated eVTOL (electric vertical takeoff and landing) system for precision application” which will use data to “reduce environmental impact and minimize product resistance.” Guardian Agriculture, came out of stealth with a \$10.5 million seed round of financing led by Leaps by Bayer with participation from FMC Ventures, Wilbur-Ellis’ Cavallo Ventures, Fall Line Capital, the MIT-affiliated E14 Fund, Pillar VC and Neoteny. To date, Guardian has raised \$15.5 million in total financing. Offered as a service, Guardian Agriculture’s autonomous, eVTOL agricultural systems collect and act intelligently on data generated throughout the crop protection process. When deployed at scale, “the systems are capable of eliminating hundreds of millions of pounds of unnecessary, pesticide use annually while helping farmers grow healthier, better protected crops,” according to the firm. “We believe eVTOL is the crop protection model of the future,” said Adam Bercu, CEO and Co-Founder of Guardian Agriculture. “Guardian Agriculture’s technology delivers tremendous benefits to both growers and the environment.” Each device can autonomously spray or fertilize up to 40 acres an hour on pre-planned routes. The company plans to lease the technology as a service, rather than sell it for growers to use. “This is the first new aerial technology to make a material impact on American farms,” said Mike Wilbur, CEO of Wilbur-Ellis’ Cavallo Ventures. “We believe it can be profitably, and rapidly, deployed and are looking forward to working with Guardian Agriculture to roll out their technology to our customers and partners.”

Scientists ID second gene tied to heat tolerance. Researchers at UC Riverside are making progress in their understanding of how plants respond to heat, a step that could eventually lead to crops that can withstand higher temperatures as the climate continues changing. The scientists previously identified a gene connected to temperature sensing and this research discovered a second one, which they say is a “novel temperature signaling component that functions collaboratively” with their earlier find. In a [paper](#) published this week in the journal *Nature Communications*, the team said together these two discoveries are helping them pinpoint what controls plants’ thermoregulation during the daytime, when temperatures typically get the hottest. “We need plants that can endure warmer temperatures,” said UCR botany and plant sciences professor Meng Chen, an author on the paper. He said next steps in the lab will be to identify these two genes’ interconnected roles in growth, flowering and other stages of plant development.

Animal compost, cover crops help reduce risk of foodborne illness. A new study finds animal compost may prevent harmful microorganisms from surviving in farm fields. The [research](#), published today in the *Journal of Applied Microbiology*, could inspire changes in soil management. Some farms have veered away from animal compost in favor of synthetic fertilizers in part because of fear the compost would introduce pathogens that, when they hitch a ride on fresh produce, make people sick. Researchers from UC Davis, the ARS office in Albany, Calif., and Washington State University took soil samples from a longstanding organic soil management study and from soil treated with synthetic fertilizer and spiked them in the lab with listeria and salmonella. They found only the samples with animal compost created a microbial community that starved the pathogens, reducing their survival. Lead author Naresh Devarajan, a UC Davis postdoctoral researcher, says existing research demonstrates the soil health benefits of animal compost. This study found “it could also bolster food safety.” He said the next step will be to isolate the specific bacteria responsible for suppressing the pathogens to explore “a management method” that would amplify those soil microbes and prevent the illness-causing bugs from getting into the food supply.

New coalition pledges to increase pollinator habitat on California’s working lands. The California Pollinator Coalition is broadening its collaboration between agriculture and conservation groups to improve the health, diversity and number of pollinators on working lands. Organized by Pollinator Partnership, the California Department of Food and Agriculture, the Almond Board of California, California Farm Bureau, California Association of Pest Control Advisors, Environmental Defense Fund, Western Growers and others, the coalition hopes for “even more collaboration among interests who have not always been aligned, but who are willing to come together in partnership to confront common challenges,” according to a release. The result will be on-the-ground improvements, technical guidance, funded research, documentation of relevant case studies, and tracked progress toward increasing healthier pollinator habitats. California is home to more than 1,600 native bees and hundreds of other species of pollinating insects. Globally, pollinators provide service to more than 180,000 different plant species, more than 1,200 crops, and are responsible for producing an estimated one out of every three bites of food. “What we are doing in California is acknowledging the urgency to address the critical issue of protecting all pollinators, including native and managed species,” said Laurie Davies Adams, President and CEO of Pollinator Partnership. “Agriculture and conservation must work together to achieve this goal, especially when we will be facing many of the same issues – increasing temperatures, erratic and unpredictable weather, fires, drought, soil depletion, and more. The outcome will not be a tidy report that sits on a shelf, but rather a metric of acres, projects, and species added to the landscape while agriculture continues to profitably feed the nation.” Josette Lewis, Chief Scientific Officer of the Almond Board of

California, said, this work “will require a robust and sustained effort, but we are determined to be part of the solution. Almond growers and many other farmers depend on pollinators to produce a crop and pollinators depend on us to provide safe habitat. Working lands can and should be part of the solution.”

Farm Hands West: Malik joins Western Growers

Western Growers has added **Afreen Malik** as the new science programs director. Bringing over 20 years of experience in sustainability, food safety, and quality assurance, Malik previously served as director of technical services at International Food Safety and Quality Services, a consulting firm helping companies produce safe foods. Malik has previously worked for Ocean Mist Farms, Sunrise Growers and Calavo Growers. She also served as a biological assistant for the California Department of Food and Agriculture.



Afreen Malik

Michael Solomon has joined FiveStar Gourmet Foods as the company’s new president, effective immediately. Solomon will oversee all the day-to-day operations out of the company’s Ontario, Calif., headquarters. Solomon previously worked at Dole Fresh Vegetables where he served as president. He has also held roles as president at Pom Wonderful and was also president and CEO at Ready Pac Foods Inc.

The California Leafy Greens Marketing Agreement board of directors has re-elected **Dan Sutton**, Pismo-Oceano Vegetable Exchange, to serve as chairman and **Jan Berk** of San Miguel Produce will continue to serve as vice chairman. **Robert Verloop**, Coastline Family Farms, was elected to serve as the new secretary treasurer. New to the board is **Chris Drew** of Ocean Mist Farms representing the Salinas, Watsonville and San Joaquin Valley District. Also new to the Board representing this district are **Scott Grabau**, Tanimura & Antle, along with **Matt Amaral** of D’Arrigo Brothers, **Cynthia Dominguez** of Duda Farm Fresh Foods, and **Tim McAfee**, Visionary Vegetables, who will serve as alternate board members. Representing the Blythe and Imperial Valley District are **Jack Vessey**, Vessey and Company, and **Jeanine Frierson**, Mann Packing/Fresh Leaf Farms who will serve as an alternate member. A full list of the LGMA Board members can be found [here](#).

Bayer has reorganized its U.S. corporate affairs team which will separate communications and public affairs responsibilities. **Beth Roden** has been tapped to be the new senior vice president and head of U.S. communications. She will also lead communications for consumer health North America. She was previously head of global crop science communications. **Michael Parrish** will lead Bayer’s U.S. public affairs on an interim basis. Parrish currently serves as the vice president of U.S. government relations and will continue to lead the corporate and healthcare government relations and policy teams that are currently reporting to him. Both Roden and Parrish will join the U.S. Country Leadership Team. In addition, Roden will join the consumer health North America leadership team and Parrish will join the global public affairs for science and sustainability team. Lastly, Bayer’s U.S. corporate engagement team, led by **Al Mitchell** will become part of U.S. public affairs. **Raymond F. Kerins, Jr.**, led the group for the past eight years as the senior vice president and head of U.S. corporate affairs. He has announced he will be leaving the company effective June 14 to pursue other opportunities.

Clark Ogilvie will be the new general counsel of the Farm Credit Administration. He replaces **Charlie Rawles**, who retired last week. Ogilvie, who officially joins FCA April 11, is currently special counsel in the legal division for the Commodity Futures Trading Commission. His career also includes stops at the House Ag Committee and as a legislative assistant to former Rep. **Bob Etheridge**, D-N.C.

Joe Hack has joined the Daschle Group as a vice president. He plans to lobby for health care, defense and international clients. He most recently served as Sen. **Deb Fischer**'s, R-Neb., chief of staff, a position he has been in since 2015. The Daschle Group is a lobbying firm founded by former Sen. **Tom Daschle**, D-S.D.

The American Seed Trade Association has hired **Payton Englert** as the association's new director of government affairs. Englert previously worked for Sen. **Josh Hawley**, R-Mo., as a legislative correspondent where she worked on ag policy. Englert grew up in Missouri on her family's farm which has been in operation for the past 75 years. She graduated from the University of Missouri with a degree in health science.



Dennis Bryant

The National Grain and Feed Association re-elected **JoAnn Brouillette** as its chairman. Brouillette is the president and managing partner of Demeter LP in Fowler Ind. The group also elects 11 new board members to three-year terms.

Joining the American Veterinary Medical Association team is **Whitney Tyler** as assistant director for government relations. After leaving Georgia state politics, Tyler has spent the last several years as a political consultant in D.C. **Susie Dumond** also joins the team as the new grassroots advocacy coordinator. She previously served as the grassroots and congressional advocacy specialist at the American Academy of Dermatology. Settling in to her role as manager of state advocacy is **Rachel Cole**. She joined AVMA in February and previously worked for the National Rifle Association as a senior legislative aide.

Dennis Bryant is the new director of sales for AquaBounty Technologies, a land-based aquaculture company. Bryant most recently was the managing director for Ocean Quality USA. He will be responsible for generating sales as the company prepares for the commercial launch of its genetically engineered Atlantic salmon.

Best regards,

Sara Wyant
Editor

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