

## Port crisis pulls California farmers into ‘perfect storm’ of competing interests

A deluge of issues filled a four-hour joint hearing last week for two Assembly and Senate committees. The lawmakers dove into the heart of a port crisis that has bumped agricultural exports to the end of the line for shipping priorities.

Port authorities argued that a lack of federal infrastructure investment has led to the massive congestion in Southern California, with a nearly 11-to-1 imbalance compared to states with smaller ports. Railway companies worried the federal infrastructure package would do little in the near term, owing to the region’s inability to build significant new infrastructure without decades-long legal battles over environmental impacts. Trucking associations cited the driver shortage, while union leaders said better quality jobs are needed.

Farm groups, worn down from a year and a half of shipping issues, have been taking emergency actions to maintain critical international markets, often at the cost of short-term profits.

**“The only way that this can be resolved is if the congestion eases and those shipping companies aren’t making as much money as they are right now,” said Roger Isom, president and CEO of the California Cotton Ginners and Growers Association and the Western Agricultural Processors Association.**

The three ports at issue—Long Beach, Los Angeles and Oakland—handle over \$8 billion in annual agricultural exports, according to Isom. Almonds represent slightly more than half that amount, followed by pistachios and walnuts; 73% of the almonds and 100% of the cotton grown in California are exported.

Isom said up to 80% of the export bookings for his members are being cancelled or rescheduled, causing one walnut processor to lose 27 bookings in October. The fees and surcharges for demurrage and storage have ranged as high as \$30,000 a month for containers sitting too long at port. Ocean carriers have also bumped up rates for containers while adding peak season and West Coast surcharges.



A container ship unloads cargo at a specialized dock. (photo: USDA)

“As a result, we've lost markets, especially for walnuts,” he said. “European Christmas is a big market and is now being filled by other countries.”

Market losses cost one member \$7.5 million of sales in one month. The industry has responded with emergency solutions, shipping pistachios by rail to Houston and Galveston ports in Texas, which costs an additional \$1,200 per container and adds no new revenue but simply maintains a foothold in the marketplace, he explained. Walnuts are traveling by rail to Baltimore for shipment to European customers, while cotton is traveling by air freight to Peru “just to preserve those relationships.”

Isom said his growers are at the mercy of foreign shipping companies, which dominate California’s ports, earning them more than \$25,000 per container—far more than the \$800 for an agricultural export container.

Assemblymember Cecilia Aguiar-Curry of Winters stressed that agricultural leaders want solutions within the next 30 to 90 days.

**“You just can't turn on a dime,” countered Asm. Patrick O'Donnell of Long Beach, chair of the Select Committee on Ports and Goods Movement, who explained that it takes time to line up the shipping companies, terminal operator, trucking companies and warehouses—all with legal contracts.**

Also defending shipping companies was Mike Jacob, vice president and general counsel for the Pacific Merchant Shipping Association, who described carriers as being at the mercy of the markets. Jacob and others stressed that it is a global issue, with 150 ships currently waiting off the coast of China due to the congestion.

**“There have been many, many years where our industry was losing money,” said Jacob. “I don't think profitability in our sector is a bad thing.”**

He called the demurrage policies critical to keeping fluidity in the system, and said they serve to accelerate the movement of cargo, “regardless of who they're imposed on.”



Asm. Patrick O'Donnell, D-Long Beach

Asm. Mia Bonta of Alameda and other lawmakers pushed for more ships to fill an imbalance at ports like Oakland, which is operating at just 50% of capacity and is in close proximity to Central Valley agriculture.

**“The whole terminal is empty—empty of containers, empty of ships,” said Danny Wan, president of the California Association of Port Authorities, in describing a recent visit to the port.**

Shipping lines used to drop off cargo first in Southern California and then Oakland, picking up agricultural goods there before heading back to Asia, he explained. Now they only drop off in LA or Long Beach.

California Transportation Secretary David Kim noted that the Fresno Council of Governments is working on a feasibility study for an inland port proposal.

Bonta, who took over the seat of her husband, Rob Bonta, in September, pushed for protecting port communities from increased air pollution that could result from new infrastructure improvements and for protecting workers from misclassification.

**“One of the reasons why we are struggling in this moment right now is because of the deregulation of the trucking industry that has happened and the misclassification of our truckers as independent contractors,” she said.**

Ron Herrera, director of the Teamsters Port Division, echoed Bonta’s comments, while Republican Senator Brian Dahle, who runs a seed and trucking company in Lassen County, argued that one of the biggest problems is a lack of talent for operating the trucks, which has been exacerbated by pandemic-related expansions in unemployment benefits. This prompted Dee Myers, who directs the governor’s Office of Business and Economic Development, to note that rolling back unemployment benefits in other states did not reveal a cause-and-effect relationship to the worker shortage.

Chris Shimoda, senior vice president of government affairs at the California Trucking Association, added that truck manufacturers have been hit by the supply chain crisis as well. With a global microprocessor shortage, the companies have cut back production lines, leaving trucking companies unable to purchase cleaner vehicles to meet regulatory deadlines for air quality standards.

Ramon Ponce de Leon, president of the International Longshore and Warehouse Union Local 13, called it ridiculous to depend on the electrification of trucks.

**“We cannot afford any more trucks on our freeways,” said Ponce de Leon. “We need to move to a rail standard.”**

He and O’Donnell pushed for rail companies to relieve the load and pollution burdens through on-dock rail. Juan Acosta, regional assistant vice president at BNSF Railway, said the actual issue at play is an unsustainable formula, with more freight coming in and less being picked up.

**“We’d love to move more on-dock rail on the railroad,” said Acosta. “But you have to land that freight someplace in California.”**

He saw potential in the federal infrastructure bill but noted that Southern California is home to “the poster child for the inability to build anything of significance.” The Southern California International Gateway Project has hardly advanced in 20 years due to environmental permits and lawsuits, he said.

Regulatory hurdles were the focus of concern as well for the Agricultural Council of California, the California Association of Winegrape Growers and several business groups. Last month they urged Governor Gavin Newsom to suspend new labor laws on warehouse workers and independent contractors, relax new clean air requirements and streamline environmental reviews.

**That sentiment was repeated in the hearing with Rachel Michelin, president of the California Retailers Association, who said the constant new laws and regulatory changes in the state have been driving retailers to build new distribution warehouses instead in Nevada or Arizona and bring those goods back to California for sale.**

Sen. Lena Gonzalez of Long Beach responded that the warehouse regulation of concern has a three-year phase-in period.

“So, there is time,” said Gonzalez. “These regulations are always tough to bear. But I know a lot of the port communities also are dealing with a lot of emission sources.”

When pressed on easing requirements under the warehouse regulation and AB 5, California’s independent contractor law, Myers conceded the administration is “willing to look broadly” but offered no other details.

“I certainly don't think we're going to be willing to just wholesale indefinitely lift certain restrictions,” said Myers. “There's some things that we won't be willing to change.”

## **Rhetoric heats up in debate over pesticide notifications**

Agricultural commissioners and industry groups are pushing for a science-based approach as the Department of Pesticide Regulation (DPR) launches a statewide public notification system for pesticide applications.

During two days of listening sessions last week for feedback on new guiding principles for the process, environmental justice advocates accused the department of delaying the implementation of a system to appease agricultural interests at the cost of farmworker health. During the second workshop, Sandy Elles, executive director of the California Agricultural Commissioners and Sealers Association (CACASA), responded to the comments.

**“I'm very concerned with the rhetoric in the dialogue that pits one part of the community against the other—farmworkers against farmers,” said Elles. “It's really important that we all work together to create a successful program.”**

She stressed CACASA’s commitment to protecting public health and working in good faith with DPR and community leaders, and that the system must be based on science and on a consensus around the guiding principles. She called the existing system robust for regulating pesticides in California and a three-way partnership between CACASA, DPR and U.S. EPA.

**“Every day, we have inspectors and investigators out in the field protecting the public health and natural resources,” said Elles.**

DPR Acting Director Julie Henderson shared that the department has been working with agricultural commissioners to get pilot projects up and running as soon as possible to test potential versions of a system.

Elles’ comments were immediately followed by a litany of criticism from Byanka Santoyo, a community organizer for The Center on Race, Poverty & the Environment.



DPR Acting Director Julie Henderson (left) participates in an environmental justice work group on chlorpyrifos in 2020. (Photo: Brad Hooker)

**“If we don't even have the president of CACASA stating publicly that they're not going to be enforced to do any type of notification, that is alarming,” said Santoyo, in arguing the commissioners should not be equal partners. “That is alarming for DPR not even to be able to enforce something because their hands are tied. They're not responsible for the commissioners.”**

Santoyo alleged the previous DPR director, Val Dolcini, was not able to make a notification system work, and asked what Henderson would do differently.

**“I absolutely appreciate the frustration that all of you are expressing tonight about the time that it's taking us to get this up and running,” Henderson later responded. “We have to design an IT system, a technology system, as well as draft a regulation to implement the notification system so that it is applied consistently across the state. We will do whatever we can to try to expedite that process and move it along faster.”**



Tulare County Deputy Agricultural Commissioner Marianne Gentert

During the previous meeting, one pest control advisor in Fresno County added grower buy-in as another technology hurdle for widespread adoption. She encouraged DPR to put some of the \$10 million in state budget funding toward extensive education on the platform.

“None of our systems that we utilize are really automated very much in any way,” she said. “So, it's unrealistic to believe that there's any way growers could be able to make this leap to automated reporting.”

A simple technology does already exist that could be used today, explained Marianna Gentert, the deputy agricultural commissioner for Tulare County, adding that DPR is overthinking and overanalyzing the issue, and texts, emails and door hangers would not be needed. She proposed posting to a state website a spreadsheet containing the information of each notice of intent that agricultural commissioners have entered into the CalAg Permits system.

**“When I want to know about, say, the registered sex offenders post, it doesn't give me a text message that someone moved to my neighborhood,” said Gentert. “I go to the website because I care about wanting to know that.”**

She pointed out that a DPR regulation could rub against local ordinances, particularly with the 72-hour notice environmental advocates have called for. Tulare County, for example, requires notice by 4 p.m. the day prior and allows up to four days if weather impedes the application. She added that it could take days to finish one application.

**The greatest challenge for any notification system, Gentert explained, is that it would only cover 1% of the actual pesticides being used, since most are not restricted materials and permits are not required for structural pest control operations in buildings, since they are outside the authority of commissioners.**

Gentert also pushed back on one farmer's request to not include organic growers in the notification requirements when he claimed the independent audits certify they are not using any hard materials in their control programs.

**“I would say not to exclude organic growers, because they still use pesticides that require respiratory protection,” said Gentert. “There could still be an impact to people around their pesticide applications.”**

Manuel Cunha, president of the Nisei Farmers League, said the agriculture industry would rather not use chemicals at all, owing to the cost, and growers have already been doing “one heck of a job” notifying workers and communities. He called it insane to not use pesticides at all and

“allow horrible pests to live.” He added that the notifications should be tied to the local area and a grower should not have to “contact someone on the moon to know what's going on.”

Cunha shared a common concern that the overall burdens the state is placing on California farmers are taking important tools away from integrated pest management practices.

“The small farmers are being eliminated because of the regulatory impediments, not just by [DPR], but by all agencies,” he said. “Our Legislature is killing the small farmers.”

## **Sophisticated plant breeding offers more ways to combat drought, climate change**

The rainy season is kicking off with enough moisture to ease some Californians’ water worries, but the long-term outlook for agriculture remains one that calls upon farmers to maximize “crop per drop.” In the case of almonds, one of the state’s most profitable crops, it could take decades to transition from existing trees to others that can achieve similar yields with less water.

Many of the improvements will come on the input side—from irrigation strategies to nutrient management, but plant breeders and geneticists are also working to improve the trees themselves.

Devinder Sandhu, a research geneticist with USDA’s Agricultural Research Service at the Salinity Lab in Riverside, Calif., said drought has become a “driving force” behind his research and tolerance for salinity in soil is one thing that can help a tree survive in lower water conditions.

**“In coming years, salinity is going to become a lot more important because of drought,” he said, “because of climate change.”**

During drought, salt that previously was pushed deep into the soil by rainwater is able to creep back toward the surface, he said.

“Our role here is to find some almond genotypes which can take more salt,” Sandhu said. In addition to less reliable rain, growers are planting almond trees out to the far edges of where they have historically been grown in California. That, too, can mean marginal soils and less water. Plus, Sandhu said there is an increasing desire to use treated wastewater or other recycled water for crops, which can sometimes be high in salt.



California almond trees. (Courtesy EDF)

In a recent study, Sandhu and colleagues evaluated how a variety of different rootstocks reacted to different salt stressors. One of their discoveries, published in the journal *Scientific Reports*, found that a specific amino acid called proline turned out to be a surprisingly good marker for identifying saline tolerance. The research, which also identified the top rootstock types to use in drier, more saline soils, didn’t delve into the genetic mechanism that accounts for salt tolerance. But that type of work is increasingly happening in various plants as the ability to sequence whole genomes has become more widespread and affordable.

That’s how a collaboration between New York University computational biologists and field ecologists from the Pontificia Universidad Católica in Chile led to discoveries about the relationship between plants that have evolved to survive in the Atacama Desert and some of the

world's important crop plants. The decade-long investigation collected genetic information from all the plants in a specific study area of the desert and matched as many of those as they could with genetic "relatives" that are important crop plants—grasses, for example. Even tomatoes. One goal of the project, said Gloria Coruzzi, a senior author on the paper and a professor at New York University, is that eventually this basic research could be translated into breeding programs for biofuels, for example. The US Department of Energy helped fund the project.

**"They want to improve the growth of biofuel crops on marginal soils," she said, so the most fertile soil can be reserved for edible crops.**

Rodrigo Gutiérrez of Pontificia Universidad Católica designed the project and oversaw the field research. He said the families of genes that have been identified in both the desert plants and domesticated crops could provide geneticists with markers to use in a breeding program. Other researchers could "try to modify some of these genes in crops and see if they generate a more resilient crop," he said.



The Atacama Desert has provided genetic clues for plant breeders to exploit in creating more resilient crops. (Photo: Melissa Aguilar)

That's what Coruzzi's lab has done on an experimental level, crossing some of the genetic material from the desert plants into samples of crop plants. "When we torture these (modified) plants," she said, they do better than their unadulterated counterparts. If someone were looking to develop a more resilient crop, they could take just some of the most important genes for drought tolerance, for example, and breed those into an already acceptable crop variety. The idea would be to maintain all the desirable traits in the existing crop while also enhancing a specific survival strategy. And torturing plants, so to speak, is one way to find out whether they will survive in the future conditions that are predicted.

The Atacama Desert study is not directly connected to plant breeding in California, but it's contributing to the body of scientific literature that will inform future experiments.

"Can the plant adapt to a changing climate?" asks Tom Gradziel, a plant breeder and professor at UC Davis. **"Inherently, almond has the capacity to deal with low water," he adds, but the yields that California growers have come to expect won't necessarily continue with the current trees in low water years.** That's why the rootstock research at the Salinity Lab is important. Most commercial almond trees are grafted onto rootstock from peach or apricot or even sometimes plum trees. The ability to "mix and match" rootstocks provides myriad options, Gradziel said.

**But one of the hurdles is the time it takes to grow out an almond tree, on whichever rootstock, and see how it does under different natural conditions. Researchers can do that to a certain extent, in relatively low-risk environments, but ultimately, he said, farmers have to be willing to plant a few new trees and see how they do over five or 10 or 15 years.**

"You're not necessarily looking for a winner," he said. "You're looking to make sure it's not a loser." A tree that fails gets dropped, but trees that are successful will prompt farmers to gradually plant more of that type. With limited water increasing the price of doing business for farmers, Gradziel said "almonds is one of the few crops that's actually valuable enough" to

justify using that water. Still, growers need to find a profitable balance between input costs and yields.

“It’s an evolving solution,” he said, adding that he’s confident the almond industry is capable of changing as conditions require. He also said the collaboration of government and university researchers, industry and the growers themselves is critical to getting the science out of the lab and into the field. Getting feedback from the growers back to the scientists is equally important. In an area as big as California, he said testing needs to happen almost simultaneously in various regions with different soils and climates. Even though bringing a new almond variety to market can be a long-term investment, Gradziel wants to make sure the research is never too myopic to meet the different demands of the many farmers.

“I want to make sure that the breeding, selection options, that the growers have are diverse enough that whatever their particular need is, there will be something that satisfies it,” he said. In other words, it’s not one cultivar fits all.

## **First infrastructure funding headed out in 2022, but some aid could take years**

The Biden administration expects to start distributing the first dollars from the new bipartisan infrastructure bill in the first half of 2022, but it's likely to take significantly longer for farmers and rural Americans to see some of the long-sought spending.

The Infrastructure Investment and Jobs Act provides \$550 billion in new funding for such needs as roads, bridges, ports and waterways, rail improvements, rural broadband, clean energy transmission and Western water projects.

The bill, which President Joe Biden is expected to sign into law next week, also extends existing transportation programs to bring the total projected spending over 10 years to \$1.2 trillion.

**"When you improve the transportation system, when you improve the roads and bridges and the locks and advance ports, you're assuring that America will retain its competitive edge in being able to get product to market defensively, which helps our exports and helps to preserve our opportunity for export in competitive environments," Agriculture Secretary Tom Vilsack told *Agri-Pulse* in an exclusive interview about the bill.**

The bill provides a historic investment of \$65 billion into closing internet service gaps that have plagued rural areas and inhibited the use of precision agriculture.



*Ag Secretary Tom Vilsack*

**In addition to improving access to education and health care, high-speed internet service will “expand the opportunity for farmers to participate in precision agriculture, which I think is going to become even more important as we deal with trying to make sure that the bottom line of farmers improves, and we see rising input costs. Precision agriculture can be a way of dealing with that challenge,” Vilsack said.**



The legislation also is designed to shift Americans into electric vehicles, which could, in turn, reduce demand for biofuels, through the construction of charging stations and the replacement of many existing fossil-fuel-powered buses.

The bill is designed to reach Biden's goal of having 500,000 EV charging stations installed by 2030. Some 10,000 buses would be switched to electric, according to the Transportation Department.

**Vilsack said that the biofuel industry shouldn't be threatened by the EV funding, arguing that there will be continued demand for biofuels for passenger vehicles and noting that the aviation industry plans to increase its use of biofuels. Demand for biodiesel and renewable diesel to fuel trucks and buses also is expected to continue growing.**

"I'm pretty sure in my lifetime and beyond you're going to continue to have a need for biofuels for cars and trucks," Vilsack said.

How fast the infrastructure funding gets out the door depends in part on whether it will be distributed through existing programs or whether new programs and regulations have to be written. The latter process could take a year or longer.

One of the first tranches of spending will be for roads and highways through formula-driven grants to states. That money will go out in the next six months, according to the Transportation Department.

DOT will have to add to its staff to handle all of the spending initiatives it will get; the bill will push the department's annual funding from \$90 billion to \$140 billion a year, Deputy Transportation Secretary Polly Trottenberg told reporters Tuesday.

The bill will fund the repair of 10 major bridges and 15,000 smaller ones, she said.

**Also in the legislation is an additional 150 air-mile exemption from hours-of-service regulations for livestock haulers' destination points. The National Cattlemen's Beef Association said that will provide needed flexibility.**

Here is a look at some other major aspects of the bill:

**Western water projects:** The Bureau of Reclamation regional offices have already been working with headquarters staff to prepare to use the funding, according to Tanya Trujillo, the Interior Department's assistant secretary for water and science. **The regional offices were asked to identify "projects that are ready to go and can use additional funding," she said.**

The agency can move especially quickly in funding rural water and drought contingency projects, she told reporters. She said the agency didn't plan to impose any new restrictions on loan programs.

**Waterways:** Agricultural shippers could also find out early next year how quickly the Army Corps of Engineers will start work on replacing the Mississippi River locks and dams. The construction was authorized by Congress in 2007 to ensure the flow of barge traffic that is critical to farmers in the Midwest and to U.S. corn and soybean exports.

**The bill provides \$2.5 billion for navigation projects, and the first Mississippi River project, the rebuilding of Lock and Dam 25, "is far enough along in the design process to**

**begin construction immediately,” said Deb Calhoun, a spokeswoman for the Waterways Council, which represents shippers.**

She said the construction timetable should become clearer in January when the first plan for funding the Mississippi River projects, a program known as the Navigation and Ecosystem Sustainability Program, or NESP, is expected to be released.

Lock and Dam 25 is located near Winfield, Mo., just north of St. Louis.

When the \$2.5 billion is combined with the regular annual appropriations Congress makes to the Corps, two-thirds of the pending navigation projects could potentially be funded to completion, according to the Waterways Council.

**Broadband:** Most of the bill's broadband funding, \$42.45 billion, will be routed through the Commerce Department to states to decide how to spend.

Commerce Secretary Gina Raimondo told reporters Tuesday that it would take “some number of months” to get the money distributed. Each state will get at least \$100 million, with the rest of the allocation based on the number of underserved households a state has.

Each state will have to post online a plan for spending the money and there will be “very strict criteria to make sure that we achieve the goals of affordability and access,” Raimondo said. Every state will be asked to produce a plan that “guarantees every single person in your state has access to high-speed, affordable Internet,” and then “we’re going to evaluate that plan, adjust it, provide technical assistance to make sure at the end of the day we hit the goal.”

She said the program was a “massive undertaking” but that the department has been planning for months to implement it.

**“Thirty, 40, 50 years from now, we will look back on this as the turning point, as a critical turning point, because now that we’re moving even more toward a digital economy and a data economy and a tech economy, nobody can be left behind,” she said.**



*Shirley Bloomfield, NTCA*

Between the rulemaking that the Commerce Department's National Telecommunications and Information Administration will have to do and the state proceedings that will be required, the funding likely won't be distributed to service providers until early 2023, said Shirley Bloomfield, CEO of NTCA — The Rural Broadband Association.

Another \$2 billion will go to USDA Rural Development. Most of that, \$1.96 billion, will go to USDA's existing ReConnect grant and loan program, which was created by Congress in 2018 as a pilot program. The ReConnect funding includes \$5 million for the development of cooperatives to provide broadband. An additional \$74 million is earmarked for USDA's Section 601 broadband loan program.

**Vilsack said the argument for distributing money through the states rather than directly from USDA is that state governments know which technology works best for them. The**

**ReConnect program "basically deals with existing facilities that have the need to upgrade their capacity, so that it's meaningful access" to the internet, he said.**

**Water projects:** The bill will provide \$8.3 billion to the Bureau of Reclamation for water projects that will benefit farmers in the West who have been struggling through a severe drought this year.

The funding includes \$3.2 billion for aging infrastructure and \$1.15 billion for water storage, groundwater storage, and conveyance.

**"I'm not sure of the timetable, yet, but I'm fairly certain it will be a priority for the administration to get these dollars on the ground as soon as possible," said Dan Keppen, executive director of Family Farm Alliance, which advocates for Western water needs along with a coalition of over 200 other ag groups.**

"In general, the legislation allocates dollars for programs that have already been developed." His group will be meeting with Reclamation officials next week.

The Western water funding also includes \$1 billion for water recycling, including \$450 million for a new grant program; \$1 billion for rural water projects; \$500 million for dam safety, \$300 million for implementation of the Colorado River drought contingency plan; and \$250 million for desalination projects.

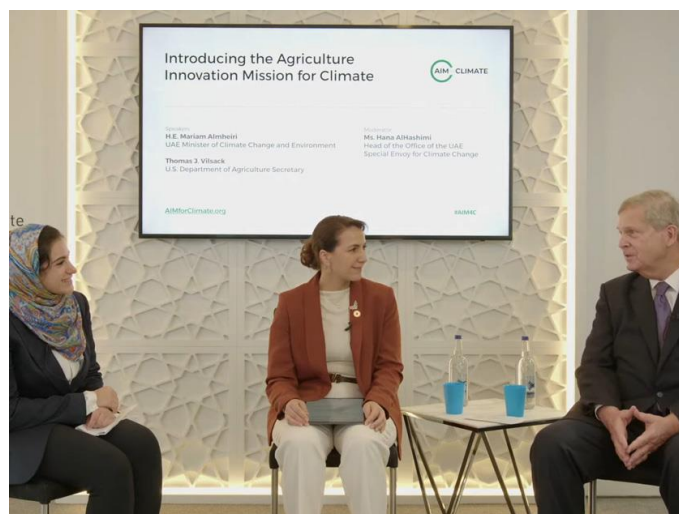
Separately, the bill would provide \$918 million over five years for USDA's watershed programs. The largest share of that funding, some \$500 million, will go to the Watershed and Flood Prevention Operations program, which is administered through USDA's Natural Resources Conservation Service. Another \$118 million is earmarked for the Watershed Rehabilitation Program, which provides assistance to renovate dams. The program has a backlog of more than \$500 million. Some \$300 million is allocated for wildfire resilience in the Emergency Watershed Protection Program.

## Ag takes bigger role at Glasgow climate conference

When A.G. Kawamura, a third-generation California fruit and vegetable grower, was at the UN climate conference in Copenhagen in 2009 as secretary of his state's Department of Food and Agriculture, "no one was talking about food and agriculture," he says.

In fact, he and other food and ag types were on the outside looking in as delegates debated how to attack climate change, a problem that has only worsened in the last 12 years.

That snubbing led to the formation of Solutions from the Land, a farmer-led group that advocates an "all tools in the toolbox" approach to ag production that aligns with Agriculture Secretary Tom Vilsack's approach to



*Ag Secretary Tom Vilsack (right) joins United Arab Emirates officials to discuss the Agriculture Innovation Mission for Climate.*

climate-smart agriculture. **The idea is not to regulate reductions in the use of fertilizers and synthetic pesticides, as is being tried in the European Union, but to incentivize farmers to adopt more climate-smart practices such as cover crops and no-till or other reduced tillage options.**

At the latest UN climate conference, which started Oct. 31 in Glasgow, Scotland and runs through this Friday, food and ag has been, if not center stage, at least an important part of the discussion.

The schedule at the 26th Conference of the Parties, or COP26, in Glasgow has been peppered with ag and food panels and high-level commitments affecting the industry, including a global methane pledge led by the U.S. and UK to reduce emissions by 30% by 2030 and a promise from 130 countries to tackle the problem of deforestation.

Vilsack seemed to be everywhere during the three days he was there - moderating panels, speaking about the U.S.-United Arab Emirates Aim for Climate initiative, which seeks to boost ag research and development around the world, and chatting with Senate Agriculture Committee Chairwoman Debbie Stabenow, D-Mich., about how the U.S. plans to go about sustainably increasing production using climate-smart agriculture.

**But for Kawamura, it's still not enough. In a journal he kept of his four days in Glasgow, he said speeches at the opening ceremony did not reflect the broad range of challenges currently faced by food and ag.**



A.G. Kawamura

“Missing in most all speeches was any sense of comprehension for how the global agricultural food systems of the world are performing or will be delivering food, feed and fiber to a demanding world under climate-related mitigation regimes,” he wrote. There needs, he said, to be “a broader discussion and strategic alliance for the world’s entire food system.”

**But by the time he left a few days later, he wrote "there was a sense of optimism that if we can continue to share our vision for 21st-century agriculture and the accelerating pace of solutions and new thinking, we can begin to develop the kind of momentum that leads to transformative progress and success across a broader wish list of human needs and goals."**

Efforts are being made to step up investments, the most prominent of them likely being the Agriculture Innovation Mission for Climate (AIM4C) officially launched at COP26, which so far has secured membership from more than 30 countries and dozens of nongovernmental groups, private companies and universities.

AIM4C has obtained commitments for \$4 billion in R&D spending from 2021-2025. So far, the biggest investments include \$1 billion each from the UAE and the United States, said Jaime Adams, a senior adviser for international affairs at the office of USDA's chief scientist, who has been working on the project. The rest includes \$194 million for eight “innovation sprints” with specific goals and contributions from a “handful” of countries, she said.

AIM4C goals include jump-starting research into climate-smart systems and facilitating coordination among ag officials at top levels of their governments.

**Those sprints involve a variety of projects with investments from nongovernment partners, including a \$40 million initiative led by the Consultative Group on International Agricultural Research (CGIAR), along with the Foundation for Food & Agriculture Research and the Gates Foundation, to “unlock key climate-resilient traits from CGIAR’s vast global genebank collections.”**

Other sprints include one spearheaded by CropLife International “to accelerate access and uptake of climate-smart crop protection innovations for smallholder farmers in Asia, Africa, and Central America,” and a Greener Cattle Initiative also involving FFAR, as well as the Innovation Center for U.S. Dairy and industry partners.

That five-year initiative will award \$5 million in research grants “to support research into tangible, actionable solutions for potentially reducing enteric methane emissions from cattle, a key opportunity to help mitigate climate change,” according to Elanco Animal Health, which is a founding member of the initiative.

**Overall, AIM4C seeks to catalyze investment from industry and encourage collaboration at high levels. President Joe Biden has challenged AIM4C organizers to get another \$8 billion committed to research by the next COP in 2022.**

The U.S. Agency for International Development announced at COP26 it would be contributing \$215 million to CGIAR “to help 200 million people raise agricultural productivity in South Asia and sub-Saharan Africa by 25 percent by 2030.”

“You have to have high-level political will to motivate the increased investment,” Adams said, noting studies that have said there’s a \$6 billion per year gap between what’s needed for agricultural research versus what’s actually spent.

**An example of how difficult it can be to invest in agriculture, however, is the reduction in ag research and development funding in the Build Back Better reconciliation bill from \$7.75 billion to \$2 billion.** Half the remaining total will go toward building and facility improvements at Historically Black Colleges and Universities and other minority-serving institutions.



Doug Steele, APLU

Doug Steele, vice president for food, agriculture and natural resources at the Association of Public and Land-grant Universities, said APLU is “thrilled” about the \$1 billion, but would like to see money for the traditional land grants, known as 1862 institutions.

The previous BBB text had included \$3.65 billion for the Research Facilities Act, including the \$12 billion for minority institutions. APLU and its member land-grants are seeking \$11.5 billion over five years “to address the agricultural research infrastructure issues at colleges and schools of agriculture.” A 2015 report identified about \$8.4 billion in infrastructure and deferred maintenance needs at more than 90 institutions.

**The latest BBB package also axed \$250 million in funding for the Agricultural Research Service. “ARS’ Long-Term Agroecosystem Trial Network is one of the most important avenues for climate and soil health research,” ag consultant Ferd Hoefner said.**

Hoefner, however, was pleased to still see \$120 million for the Sustainable Agriculture Research and Education program, \$60 million for Organic Agriculture Research and Extension, and “depending on where they invest the money,” \$210 million for the Agriculture and Food Research Initiative at the National Institute of Food and Agriculture.

## **US meat looks for new advantages on global market**

In an increasingly global market where U.S. beef, pork and poultry producers can no longer thrive without access to foreign markets, the ag sector is clamoring for new advantages over foreign competitors, better access to foreign buyers and new free trade agreements.

While the National Pork Board (NPB) is leading the charge to overhaul the way pork is marketed to foreign buyers, a new analysis from CoBank stresses the need for the U.S. to begin sitting down at negotiating tables across the globe to get new tariff-slashing free trade agreements.

**U.S. pork exports to China surged to record levels during the height of the country’s battle with African swine fever, but that trade has been falling and NPB is sounding the alarm about the need to diversify and build up the U.S. presence in countries where demand is growing. China is rebuilding its swine herd, negating much of its need for imports, and that means U.S. producers are looking elsewhere in a more competitive environment.**

“While U.S. pork exports to China are down 21% year-to-date, total U.S. pork exports are up 1% compared to 2020,” says NPB. U.S. pork exports to Mexico this year are up 27%, and shipments to the Philippines are up 114%. Other established and growing markets include Japan and Colombia.

Working together with groups like the U.S. Meat Export Federation and the National Pork Producers Council, NPB says there are growth opportunities for exports to many foreign markets, and U.S. pork needs to “differentiate itself beyond being a low-cost supplier to continue to grow its market share.”

A key way to do that, says Missouri pork producer and NPB past president David Newman, is to show the world the strides that the U.S. industry has made in becoming more sustainable.

**“Sustainability is becoming increasingly talked about with our consumers and not just domestically, but internationally,” Newman told *Agri-Pulse* ahead of the release of an NPB report, “Diversifying and Differentiating U.S. Pork in the Global Market,” which is being published Wednesday. “Being able to address (sustainability) ahead of the curve rather than behind the curve — that’s where we want to stand as U.S. producers.”**



David Newman

The primary selling point for U.S. pork exports is still price, but that's expected to change in the coming years. Foreign buyers are already telling groups like NPB that they are going to need products that are demonstrably more sustainable, says Rupert Claxton, a director for the French consulting company Gira.

**“The world is going to get more competitive over the next five years,” he said. “The market is clearly asking us to demonstrate that we’re doing better than we’ve done before.”**

**As to how the pork industry will do that, the NPB is laying out a plan, a key part of which is asking America’s pork producers to fill out an “On-Farm Sustainability Report” to “help measure and document producers’ continuous improvement efforts.”**

Hundreds of thousands of pigs across the country are already being reported on and once NPB, together with NPPC and USMEF, believe they have enough coverage, they will begin presenting that aggregate data to international customers.

“We’re not going to run from sustainability,” Newman said. “We’re going to hit it head-on.”

That, together with the ability to prove those gains in sustainability to international buyers, will be paramount, said NPB spokeswoman Claire Masker-King.

**“The world is going to get more competitive over the next five years,” said Claxton. And that is also the reason lawmakers and leaders in the U.S. ag sector are urging the Biden administration to begin negotiating trade pacts.** Other world players like China, the UK and the European Union are moving to establish free trade agreements, and a new report from CoBank highlights the importance of foreign market access for U.S. beef, pork and poultry, while stressing the need for new free trade agreements.

While the NPB is looking to producers’ sustainability efforts to provide U.S. packers and exporters with the edge they need over competitors, CoBank says trade deals are also essential. The problem is the Biden administration has shown no urgency in sitting down at negotiating tables to get tariff-slashing deals while other world players are moving relatively fast.

**“Trade policy is crucial to building consistent export markets, and the U.S. needs to be at the negotiating table,” said Brian Earnest, author of the new report, “U.S. Animal Protein Needs Trade Negotiators Back at the Table.”**

“In the past two decades, U.S. animal protein exports have grown from \$7.4 billion to \$20.7 billion, driven by industry marketing and government trade negotiations,” the report said. **“Today, trade accounts for 10%-30% of U.S. animal protein production, depending on industry segment.”**

A particular focus of the report is the Comprehensive and Progressive Trans-Pacific Partnership, an 11-country trade pact among Pacific Rim nations that the U.S. pulled out of in 2018.

The Chinese promise under the “phase one” deal to buy U.S. ag commodities ends on Dec. 31, making it more important than ever that the U.S. retake its CPTPP seat, according to the report.

“Continued diversification of markets and products is critical for a vibrant U.S. protein export trade,” said Brian Earnest, lead animal protein economist with CoBank. “The successes the U.S. meat industry has enjoyed during the ‘phase one’ agreement with China are not assured in 2022

and beyond. And the lack of U.S. participation in evolving global trade partnerships in recent years has put export success at risk.”

The UK, Taiwan and China are looking to join the CPTPP, but the Biden administration appears to be in no hurry. U.S. Trade Representative Katherine Tai, when asked recently if the U.S. would consider rejoining, stressed that the original TPP was a bad deal for some segments of the U.S.

## **Food prices surge again in October, helping fuel worst inflation in 30 years**

Supermarket prices jumped another 1% in October and are up 5.4% over the past year as food continues to contribute to the worst inflation consumers have seen in decades.

Overall, the Consumer Price Index rose 0.9% in October and is up 6.2% over the past year, the largest increase for a 12-month period since 1991, the Bureau of Labor Statistics reported Wednesday.

Higher prices for energy, housing, used cars and trucks also were major contributors to the increase. Gasoline prices alone increased 6.1% in October, leading to an overall increase of 4.8% in energy costs.

Prices for all major food groups were up in October, although the increases for dairy products and for fruits and vegetables were relatively small.

Prices for meats, poultry, fish, and eggs led the way, rising 1.7% last month on the heels of a 2.2% increase in September. Beef prices alone were up 3.1% in October.

Prices for cereals and bakery products rose 1% in October, following a 1.1% increase the month before.

Prices for nonalcoholic beverages were up 0.8% last month. Prices for dairy products rose 0.2%, and fruits and vegetables cost on average 0.1% more in October. Overall, supermarket prices had risen 1.2% in September.

USDA's Economic Research Service is forecasting that grocery prices will be about 3% higher for 2021, with some moderation coming in 2022, when the increase is expected to be between 1.5% and 2.5%.

ERS said in its latest Food Price Outlook that prices for beef and other types of meat are up because of "strong domestic and international demand, labor shortages, supply chain disruptions, and high feed and other input costs." Prices for both beef and pork are expected to be about 7% higher than they were in 2020.

## **3Bar Biologics wins AgSharks competition**

Leading entrepreneurs squared off at the Western Growers/S2G Ventures' AgSharks® competition this week and 3Bar Biologics walked away with a \$250,000 equity investment offer to take its microbe technology from development to market. The seed funding was awarded by S2G Ventures after 3Bar Biologics competed against four other companies inventing new technology solutions to solve agriculture's most pressing issues. Based in Ohio, 3Bar



Biologics is the global leader in customized technologies and bio-manufacturing solutions for living agricultural microbe products. In addition to investment capital, 3Bar Biologics will receive international recognition, mentoring from WG and S2G, potential access to farm acreage to pilot their technologies and exposure to WG's expansive network of leading fresh produce companies.

“In an industry forced to shoulder the crushing weight of poorly designed regulations, perpetual labor shortages and water supply insecurity, innovation is essential,” said Western Growers President and CEO Dave Puglia. “3Bar Biologics embodies the entrepreneurial spirit that will help our farmers overcome these challenges and continue to feed the world.”

During the competition, the agtech startups pitched to six expert judges and a live audience where they were evaluated on the strength of their solution and potential to scale, among other assessment categories.

Naïo Technologies was the audience winner.

"The AgSharks Competition continues to bring together leading growers and entrepreneurs in the space," said Aaron Rudberg, Managing Director and COO, S2G Ventures. He noted that the biologics market is rapidly growing, but struggles with issues of efficacy and stability. “3Bar's innovative solution is poised to solve many of these challenges.”

AgSharks premiered in 2017 with the goal of supporting game-changing startups and technologies, and since its inception, three agtech startups – Hazel

Technologies, AgVoice and Burro –

have received a total of \$2.5 million in investment offers from S2G Ventures. More than 100 applicants applied for the AgSharks event in 2021.

## News Briefs:

**Disputed groundwater plan headed to court.** Concerns about the proposed groundwater sustainability plan for a basin that includes parts of Kern, Inyo and San Bernardino counties prompted a request for adjudication that is scheduled for a court meeting on Nov. 19, which is also the deadline for anyone claiming groundwater rights to join the lawsuit. Mojave Pistachios, LLC filed paperwork to initiate a groundwater adjudication for the Indian Wells Valley Groundwater Basin. The lawsuit seeks “a judgment to comprehensively determine and adjudicate all groundwater rights in the Basin and to provide a physical solution for the perpetual and continuous management of the Basin.” Mojave Pistachios has refused to pay fees the Indian Wells Valley Groundwater Authority (IWVGA) outlined in its Groundwater Sustainability Plan (GSP). A second company, Searles Valley Minerals also has objected to IWVGA's fees. The



On left, 3Bar Biologics CEO Bruce Caldwell joined the judges' panel after his firm was selected as the AgSharks winner. Judges included: Aaron Rudberg, Managing Director and COO, S2G Ventures, Cristina Rohr, Principal, S2G Ventures, Audre Kapacinskas, Vice President, S2G Ventures; Frank Maconachy, President and CEO, Ramsay Highlander, Inc., Dominic Muzzi Jr., CEO/COO, Muzzi Family Farms, LLC, and Alexandra Allen, Compliance Counsel, Main Street Produce, Inc. Photo credit: Western Growers.

2014 Sustainable Groundwater Management Act requires local authorities to develop and implement GSPs. In 2015, the legislature added provisions granting those who claim water rights in a basin a legal strategy to challenge a GSP. “Comprehensive groundwater adjudications are very complex and dynamic court proceedings,” said Ryan Endean, a spokesperson for DWR. There are currently three other basins with comprehensive adjudications listed on DWR’s website, Indian Wells Valley is the most recent.

**NRCS unveils new AI program to forecast and support better water management practices.**

The Department of Agriculture’s Natural Resources Conservation Service has unveiled a new computer application that harnesses the power of artificial intelligence to better forecast water supply in the arid West. The primary goal of the new technology is to help producers in the American West use increasingly tight water resources more effectively while protecting the shared natural environment. The program, known as the multi-model machine learning metasystem, or M<sup>4</sup>, would be the largest migration of artificial intelligence into real-world river prediction programs, according to Sean Fleming, the applied R&D technical lead, water and climate services team at the NRCS National Water and Climate Center in Portland, Oregon. As farmers, ranchers, foresters, and water managers in the West face extreme and debilitating drought conditions, accurate water forecasts have become critical to their operations by helping guide choices like crop selection, water rights rentals, and whether or not to leave land fallow. Since the Dust Bowl of the 1930s, NRCS has helped producers plan for their operations through the Snow Survey and Water Supply Forecast program. But as margins between water supply and water demand narrow, improved accuracy in these programs is needed to reflect tighter margins due to climate change and population growth. The value of water managed using these forecasts is in the billions of dollars. But with the use of artificial intelligence in the M<sup>4</sup> program, changes in accuracy of these programs can help create over \$100 million a year in public benefit for just one river basin.

**Report: John Deere considering more overseas production as U.S. strike lingers.**

A John Deere executive says the company is looking to shift some of its necessary production to overseas facilities as a standoff with more than 10,000 union employees continues in search of a new contract. In an interview with the Des Moines Register, Cory Reed, president of John Deere’s agriculture and turf efforts, said the company will be able to accomplish some necessary production steps with its foreign plants. The company is also using nonunion, salaried employees – engineers, supervisors and financial services managers – to run U.S. facilities as the strike continues. The strike began Oct. 14 after John Deere workers rejected a six-year contract offer from the company. John Deere and representatives from the International Union, United Automobile, Aerospace and Agricultural Implement Workers of America (UAW) reached another deal weeks later, but union members voted that deal down. According to information from the company, the strike covers more than 10,000 employees of production and maintenance facilities in Illinois, Iowa and Kansas. Workers at parts facilities in Denver and Atlanta voted in favor of a separate agreement during the process.

## Farm Hands West: Keck tapped as chairman of Western Growers Board of Directors

**Albert Keck II** has been tapped to serve as chairman of Western Growers Board of Directors. Keck currently serves as president of Hadley Date Gardens. He is a third-generation Californian and farmer, and is a native of the Coachella Valley. Keck succeeds **Ryan Talley** as chairman of the board.



Albert Keck II

Allied Grape Growers named **Kyle Collins** as its manager of North Valley operations, effective Nov. 15. Collins will oversee Northern San Joaquin Valley grower relations and is responsible for negotiating economically sustainable grape purchase agreements for the association's North Valley members. For the past three years, he was a vineyard manager with Gallo Vineyards.

Gold Coast Packing has brought on **Robb Bertels** as vice president of sales and marketing. Bringing over 35 years of experience in the produce industry, Bertels most recently served as head of marketing and business development at Sakata Seed America.

The Idaho Potato Commission appointed **Mark Duncanson** as a new commissioner to the board. Duncanson serves as the director of raw material procurement at Basic American Foods. **Brett Jensen** of Brett Jensen Farms was appointed as chairman and **Bryan Wada** of Wada Farms as vice chairman.

Bayer Crop Science President **Liam Condon** plans to leave the company at the end of the year “to pursue career opportunities outside of Bayer,” the company announced Tuesday. **Rodrigo Santos** has been selected to as the new president. Condon led Bayer's crop science portfolio since the beginning of 2016 and has been with Bayer since 2006 when his former employer, Schering, was acquired by the company. Santos, himself a Bayer and Monsanto veteran, is currently the company's chief operating officer. After the acquisition of Monsanto in 2018, he led the Crop Science business in Latin America. A Brazilian national, Santos has spent 23 years with the company in sales, marketing, strategy, and business development roles located in Brazil, the United States and Eastern Europe.



Kyle Collins



Liam Condon

**Dennis Rodenbaugh** has been tapped to lead Dairy Farmers of America as the new president and chief executive officer, effective at the end of 2022. Rodenbaugh will succeed **Richard Smith**, who plans to retire after leading the organization for the past 16 years. Rodenbaugh currently serves as executive vice president and president of council operations and ingredients solutions for DFA.

**John Raines** is joining TELUS Agriculture as the organization's new president, effective Nov. 29. Raines currently serves as the chief customer officer for The Climate Corporation. Before

that, he was vice president of global integrated farming systems and precision planting for the Monsanto Company.

The Department of Agriculture has announced four new individuals to fill staff positions at headquarters in D.C. **Joaquin Altoro** was appointed administrator of the Rural Housing Service within Rural Development. Altoro most recently served as CEO and executive director for the Wisconsin Housing and Economic Development Authority. **Allen Rodriguez** is the new deputy press secretary in the Office of Communications. Rodriguez previously served as deputy press secretary to Sen. **Jeanne Shaheen**, D-N.H. **Riya Mehta** will serve as a policy adviser to the Farm Service Agency, focusing on policy work within the Farm Program and Farm Loan Program. Mehta previously served as a policy adviser to Rep. **Jimmy Panetta**, D-Calif. **Conisha Hackett** was also appointed as a policy adviser to the Farm Service Agency, focusing on organizational policy work. Hackett previously served as a research analyst with the Policy Research Center at Alcorn State University.

USDA has announced the appointments of two Farm Service Agency state executive directors and two Rural Development state directors. **Thaddeus Fairley Sr.** has been appointed FSA state executive director for Mississippi. He most recently served as a field representative for Rep. **Bennie G. Thompson**, D-Miss., current chair of the Committee on Homeland Security. **Eugene Schriefer** has been appointed FSA state executive director for Wisconsin. Most recently,



Charlene Fernandez

Schriefer served as a senior outreach specialist with the University of Wisconsin-Madison Extension Division. He has worked as an agriculture educator in Iowa County since 2009. **Julie Lassa** has been appointed RD state director for Wisconsin. Lassa most recently worked for a Wisconsin-based property and casualty insurance company. She also represented a district in central Wisconsin in the state legislature for 18 years, both in the Assembly and Senate. **Charlene Fernandez** has been tapped as the RD state director for Arizona. Fernandez was elected to the Arizona House of Representatives in 2014 and was later elected House Minority Leader in 2019.

Farmers Mutual Hail Insurance Company of Iowa has announced **Shannon Rutledge** will be promoted to the position of president and CEO at the end of the year. Rutledge previously served as FMH's executive vice president and chief operating officer. He succeeds **Ronald Rutledge**, who will be retiring Dec. 30.

**Elizabeth Escobar** now serves as the manager of strategic planning and business development for Nichino America. Escobar comes to Nichino America from ISK Biosciences where she most recently served as project manager for new business development.

The National Waterways Foundation (NWF) has elected **Matt Woodruff** as chairman, with his term expiring in 2023. He succeeds Rick Calhoun, who served as chairman for 2020-2021. Woodruff serves as vice president of public and government affairs at the Kirby Corporation. NWF has also elected new officers for the upcoming year: **Tracy Zea**, Waterways Council Inc., will serve as president; **Robert McCoy**, Amherst Madison, as vice chairman; **Karl Jefferson**, LIUNA, as treasurer; and **Deb Calhoun**, Waterways Council



Shannon Rutledge

Inc., as secretary. **Anne Thompson**, with the National Corn Growers Association, was elected as a trustee for a three-year term expiring in 2024.

**Barry Rosenbaum**, president of Nassau Candy Distributors, is the new chairman of the National Confectioners Association board of trustees. **Tony Jacobs**, president of Bazooka Candy Brands, was selected to serve as the new vice chair. Rosenbaum succeeds **Paul Chibe**, who had to step down from the board as he transitioned from his role as CEO of Ferrero North America to global president of sugar confectionery and gums, based in Europe.

**Best regards,**

**Sara Wyant**  
**Editor**

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