

Sonoma vineyards squeeze through drought, while vegetable growers struggle

Sonoma County has been ground zero for California’s drought. The wine and dairy region was the first to gain a drought declaration from Gov. Gavin Newsom this year. Now Lake Mendocino is set to hit a record low this fall and faces the likelihood of another dry year in 2022. While vineyards can survive on less irrigation, ranchers have had to haul in water for livestock and vegetable farmers have been left with few options.

“I can’t emphasize how serious this is,” said Don Seymour, the water resources manager for Sonoma Water, during a county townhall Wednesday. “If Lake Mendocino was to go dry, this would be a catastrophic event on the same lines of Hurricane Ida that just hit Louisiana.”

In approving emergency curtailment orders in June, the State Water Resources Control Board, in coordination with local water managers, had set a goal of maintaining 20,000 acre-feet of water in the reservoir through at least Oct. 1, with the hope of winter rains then replenishing the storage.



Gov. Gavin Newsom stands in a dry Lake Mendocino in May. (Source: DWR)

Seymour said the water level is already well below that goal and will get worse.

California’s historic 1977 drought set the benchmark for record low storage in the lake, at 12,000 acre-feet. That record will be broken by mid-November, Seymour predicted. The reservoir provides water to 60,000 residents in the region.

Lake Sonoma is also experiencing extremely low levels but has maintained almost 100,000 acre-feet more storage than its neighboring lake on the Russian River watershed—enough to carry it through 2022.

“The fate of the Russian River is really on the shoulders of the users,” said Seymour.

Sonoma and neighboring Marin counties have led the state in water use efficiency, dropping per capita use to about 105 gallons on average, “which is really, really dramatic,” he said. Sonoma County Supervisor David Rabbitt added that the county is diverting 31% less water from the Russian River than it did 20 years ago.

Tawny Tesconi, the executive director of the Sonoma County Farm Bureau, emphasized that farmers and ranchers were already focusing on water conservation long before the drought through practices like switching to less water-intensive crops. A voluntary drought initiative along the river, as another example, has preserved stores in off-stream private ponds to provide for fish populations along water-scarce tributaries.

Kendall-Jackson, one of the highest-selling wine brands in the nation, has been implementing a massive groundwater recharge at its Santa Rosa vineyard as part of a 10-year sustainability plan released last month. Across the Russian River vineyards, about 2,000 acres of grapes have gone unpicked this year due to the drought, according to Tesconi.



Tawny Tesconi, Sonoma County Farm Bureau. Image courtesy of Sonoma County Farm Bureau.

Yet Sonoma County Agricultural Commissioner Andrew Smith pointed out that grapevines excel at finding water in the soil, which has helped minimize the number of unpicked acres in the drought.

“There's a lot of people in the county that are really taking advantage of turning off the water more often and really adhering to the voluntary 20% reductions in use, especially if they have established vineyards,” said Smith.

He explained that once a vineyard is established, which takes five to 10 years, dry farming is an option. Many of Sonoma’s vineyards that are more than 30 years old have been dry farmed for decades. This has led to “a great percentage” of winegrape growers only watering in times of deficit to keep the crop going.

“A lot of vineyard operators this year have dropped fruit and focused on a smaller crop that is of higher quality than of the quantity that we've experienced in previous years when water was plentiful,” said Smith.

Tesconi’s greatest concerns have been with the Two Rock area of the county, where few dairy farmers can pump groundwater and the wells that do work have produced little water. With each cow requiring up to 40 gallons per day, farmers have struggled to truck in enough water and some have reduced herds as much as 30%.

“That’s almost getting to the tipping point of even making it worth it to stay in the dairy industry,” said Tesconi.

They have also moved nonlactating stock out of the area. Many have considered cleaning out their ponds and reservoirs to access more of that stored water, but labor and tank shortages have been roadblocks, she explained. A slew of dairies in the region have closed in recent years due to the expense of farming there, according to Rabbitt.

Adding to that, organic dairy farmers have had to purchase organic grain and hay “at a huge cost,” said Tesconi. Those feed products have typically come from the Klamath River region, which is also experiencing intense drought conditions.

According to Tesconi, vegetable farmers have been hardest hit, since they don’t have the opportunity to haul in water, and must either produce a smaller crop, farm fewer acres or focus on varieties that are not as thirsty. Nevertheless, Tesconi remained optimistic.

“[Our farmers] are always finding ways to make things work,” she said. “They’re resilient. They’re very open to change and really, really open to collaboration.”

As water conservation falls short, California plans for the worst

Northern California reservoirs are hitting their lowest levels in history and a third year of drought is growing more likely. This leaves state officials with difficult decisions ahead, as they spend the next two months ironing out a plan to preserve the bare minimum of water needed for basic human health and safety, which they already acknowledge may not work.

Rather than planning across historical 80-year precipitation averages, the starting point is now one of scarcity—to plan for the worst-case scenario and hope for relief.

The latest data on water conservation show much more action is needed. Voluntary cutbacks in July amounted to less than 2% of additional water savings statewide, according to numbers released Tuesday. That is far below the 15% Gov. Gavin Newsom called for in July, though forthcoming data for August will serve as a better indicator of the public response.



Lake Oroville in July. (photo: DWR)

The numbers show the North Coast region led the charge, with a 17% reduction in water use compared to the prior year—a result of mandatory curtailments for the Russian River watershed that started in June. At the other end of the spectrum, the South Coast region encompassing Los Angeles cut water use by just 0.1%, while users along the Colorado, Sacramento and San Joaquin rivers as well as the Tulare Lake region contributed less than 2% each in savings. The Central Coast, at 5%, topped the list for voluntary actions. The state

has also maintained a 17% reduction in overall water use since the last drought.

“We’re going to have to continue to deep dig in deeper,” said Joaquin Esquivel, chair of the State Water Resources Control Board, during a press conference Monday. “Conservation is a really critical tool.”

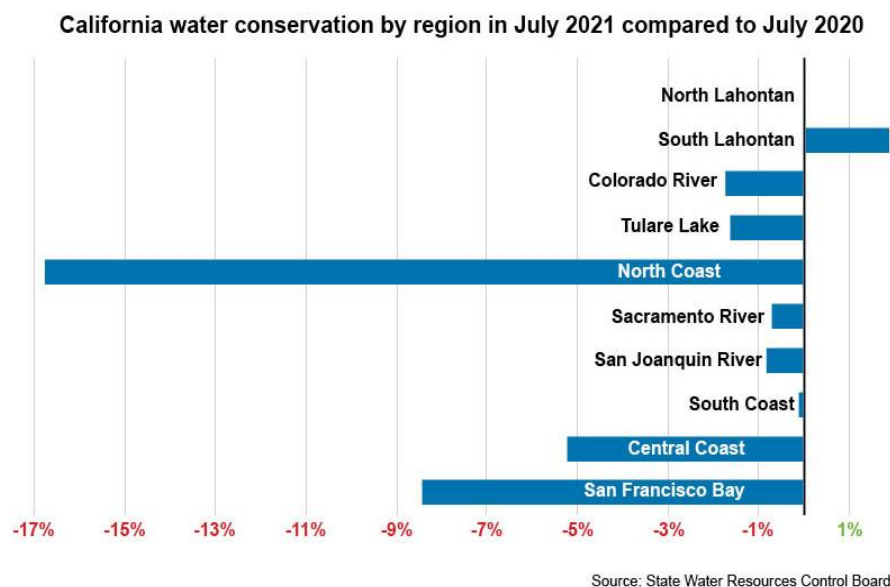
The administration is now narrowing its focus to two broad conservation targets. It would maintain at least the existing amount of storage into next summer, which is about two million acre-feet for Northern California reservoirs, assuming no new water is added through winter

storms. If possible, the administration would like to more than double that number to meet the same level of carryover storage as the end of 2020, which was also a dry year. The department will put the plan in front of the water board in December, along with petitions for emergency regulatory changes reflecting actions in the plan.

Department of Water Resources Director Karla Nemeth said this action puts water contractors south of the Delta “on notice” that they will likely receive no water allocations from the State Water Project (SWP) this year and that they should assess whether basic human needs can still be met. Settlement contractors for the San Joaquin tributaries, senior water right holders and other irrigators are included, signaling that farmers should plan for no water allocations from either project next year.

“There’s not a lot available to us if Mother Nature doesn't give us water this year,” said Nemeth. “But even a modest amount we know is going to continue to put the [SWP and Central Valley Project] in fairly dire straits.”

She saw only “a slim likelihood” those contractors would have allocations next year, since the state would need to experience more than 140% of normal precipitation over the coming months, and it would have to come in the form of a warm weather system with torrential rain, rather than as snowpack.



Lake Oroville is facing a massive deficit and will not be able to deliver water again next year. Lake Shasta and Lake Folsom are critically low as well. The state expects to continue to use storage from New Melones Reservoir further south to pump into the Sacramento–San Joaquin Delta to satisfy requirements for federal biological opinions and the state incidental take permit for the SWP.

Outside of mandatory curtailments on the North Coast, the state initially fell short of Gov. Newsom's goal of 15% voluntary cutbacks, though that might change. Percentages stand for how much water was conserved. One region used more water, but made up for that in other ways.

Nemeth has received initial feedback from contractors showing they would be able to meet critical human needs through conservation efforts and water exchanges. Along with managing for the environment and drinking water, the state and federal water projects will continue to push freshwater into the Delta to keep salinity at bay, which may involve installing more rock barriers.

“It takes a significant amount of water just to maintain the salinity barrier,” said U.S. Bureau of Reclamation Regional Director Ernest Conant, during a hearing Tuesday. “That’s an absolute priority of ours. We never want to lose control of salinity, because it takes a larger amount of water to get it back.”

Esquivel emphasized that the state is looking for local agencies to take the lead on water conservation, including for decisions over mandatory cutbacks. He said the state is releasing the water use data to help those agencies—as well as agriculture—be better decision makers in that process. But he acknowledged the state could step in to order mandatory reductions as well. Water board member Dorene D’Adamo said this could be an opportunity for San Joaquin River settlement contractors to present conservation ideas that the board could support.

The state’s drought plan will also include vulnerable communities that are not under SWP contracts but may have the capability to connect to the surface water.

Nemeth has been meeting with agricultural leaders to gain their perspectives and the topic of infrastructure investments has come up in those discussions, with mentions of [the Water Blueprint for the San Joaquin Valley](#) and other collaborative efforts. She said the crisis “definitely does” suggest that more attention is needed for infrastructure spending, and she hoped it stimulates more conversation.

“The fact that climate is now manifest in these water management decisions gives Californians and ag in the valley a new opportunity to press for infrastructure investments,” she said, adding that the Sustainable Groundwater Management Act is creating a better understanding of the investment gaps. “We finally have all the pieces in play. We know what kind of supplies we need in the valley.”

Nemeth pointed to the need for a better conveyance system to capture more water in the wet years. The SWP delivered the most water in history in 2017 and big water years like that will undoubtedly come again, she believes. The California Aqueduct, however, was designed for a certain amount of subsidence and the state has already exceeded that, inhibiting its ability to move and store large flows of water.

Voluntary settlement agreements over Bay-Delta flows and related habitat restoration projects could also play a role in the state’s new drought plan.

“One of the things that this year showed us is that there's so much uncertainty in the system,” said Nemeth. “It really, frankly, reinforces the fact that we need to do something—and we need to do something that's implementable right away—to deal with environmental flows and to establish a landscape-scale approach to habitat restoration.”

The administration had initially been pursuing a 15-year agreement, but with the uncertainty this year, an eight-year commitment is possible, she said.

During a meeting of the California Water Commission last week, Nemeth said farmers have also played a role in helping the department manage resources during dry times and for long-term needs, since farmers with 10,000 acres or more are now required to submit water management plans.

Nemeth hopes the department can more closely assess the watersheds that feed into the Central Valley to understand climate variability and climate risk.

“That information can help inform not only how we approach surface water, but more critically how that surface water is connected with our groundwater management plans and helps us understand what truly is available for recharge,” she said.

According to John Yarbrough, who oversees the SWP as assistant deputy director under Nemeth, the department has been working with other agencies to gather more data on watersheds and to

adopt new modeling approaches to improve forecasting for next year. The department is also looking at ways to reverse pump water up the aqueduct for agencies to access their stored water and meet critical agricultural needs.

By creating crops that sequester more carbon, scientists hope agriculture will help mitigate climate change

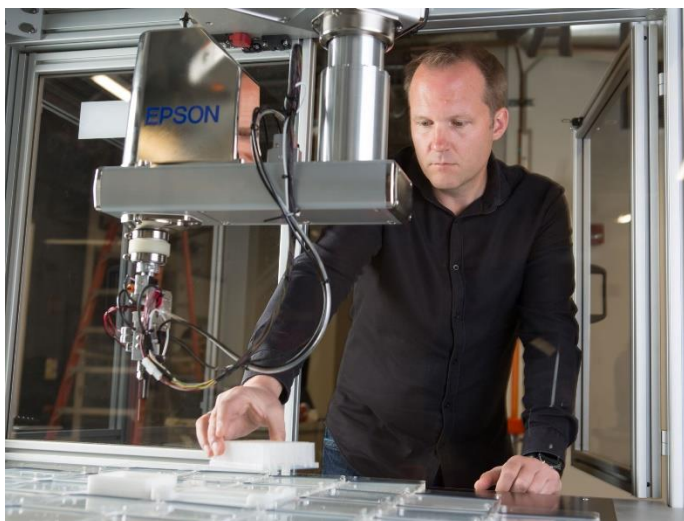
Researchers at the Salk Institute in La Jolla, California, are conducting experiments on plant root systems to develop crops they say will be able to sequester more carbon. Professor Wolfgang Busch, who is co-director of Salk's Harnessing Plants Initiative, spoke with *Agri-Pulse* about the potential of Salk Ideal Plants.

This interview has been edited and condensed for clarity and length.

Q: How did you decide to focus on roots and carbon? And what are the research questions behind the notion that plants could store more carbon?

A couple of years ago, the Salk Institute decided that it's really time to leverage advanced plant biology and genetics to try to mitigate the climate crisis. We were confident that plants could be a major solution. So we started thinking about what would be plant-related processes that would help hold onto carbon for longer in the soil. The ones that we picked, which were the most promising, are related to root traits. By putting more carbon into the root system, there will be more carbon deposited deeper in the soil. So that is the first trait: more root mass.

We are also working on two other characteristics that relate to how we can make sure that the additional carbon that we put in the root system is not being decomposed as quickly as now. You want to actually put that root mass deeper in the soil. The deeper the roots grow, the longer it takes for the carbon that the roots deposit there to decompose and go back into the atmosphere. The third one is to think about which carbon compounds make up the roots. We focus on suberin, which is naturally made in all roots and is used as a barrier in roots that prevents water loss and oxygen loss.



Professor Wolfgang Busch works in a lab at the Salk Institute in La Jolla, Calif., where his team is working to develop carbon-sequestering crop plants. (Photo: Salk Institute)

Q: How would these characteristics — deeper roots, more roots, more suberin — not be undermined by the annual cropping process?

The reason why we focus on crops is because of the scale of agriculture. If each individual plant could sequester a little bit more carbon, then it's all about acreage. Agriculture is this tremendous system that is in place that already adopts new enhanced seed varieties for different characteristics. We think by feeding root characteristics into that system, there can be an enormous effect just because of the area of the land that is used for a handful of different crop species. We don't think there is much reason to assume that any of the agricultural practices will interfere with that.

We think that regenerative ag practices, or more sustainable ag practices such as no-tilling or cover crops, would add to the benefit of the root systems we develop. If you just leave everything the same and just put more roots in at deeper layers and with more suberin, you're basically going to have a net positive effect on the carbon storage. If reduced tilling practices and cover crops are adopted, that's even better. But we don't think it's reasonable to assume everything will change in agriculture. That's not going to happen. So, we need to work with the system that's there. We're talking to seed companies and breeders to make sure the changes that we make are compatible with the system.

Q: What other climate benefits would these traits offer?

Increased soil organic matter and carbon actually lead to increased water holding capacity, which is great when you think of the flooding that occurs, because the soil can take more on. In drought, because soil water holding capacity will increase, the ability to hold moisture in the soil for longer, combined with deeper roots, especially in rain-fed systems, is also a benefit. There are many reasons to assume that these types of crops will be more stress-resilient. Something



A grow room at the Salk Institute (Courtesy: Salk Institute)

else is nitrogen. A lot of money is spent on nitrogen fertilizer, and nitrogen fertilizer gets washed down the soil column. A lot of this loss contributes to contamination. With deeper roots, you can actually catch more of this nitrogen that is moving through the soil column, possibly having a positive benefit on the input costs and the environmental effects. Making the roots deeper and more resilient will not only have strong benefits in terms of climate crisis mitigation and carbon drawdown but also might be helpful for farmers for getting better yields with the increasing weather extremes that we are having and maybe even potentially lowering input costs.

Q: Where does the Salk Institute fit into the research continuum from public to private? And do you see seed companies as your competition or potential partners?

Our North Star in this project is we want to provide the world crop plant seeds that will be able to make an impact. It's not so much thinking about competition, it's about what is the best pathway to enable farmers to grow carbon-sequestering crops? That is different for each crop species. At the forefront of our minds is always, whatever we do, with whom we partner, we need to be assured that the outcome of this partnership will lead to a lot of acreage where farmers can potentially plant these seeds. Right now, we are talking to major seed companies, I think they all know what we're doing. In the next years, we hope to form specific partnerships.

Q: Where does the funding for Salk Ideal Plants come from?

When we decided we really want and need to work on the aspect of carbon sequestration in plants, there was no funding scheme available from federal funding sources. We were very fortunate that we could acquire a lot of philanthropic support, first from the [TED Audacious Project](#), the [Hess Corporation](#) and finally from the [Bezos Earth Fund](#), totaling more than \$80 million.

My sense is that federal funding is now more and more kicking in, which is a great thing, and so we will, of course, then compete for those grants as well.

Q: Do you anticipate that what ultimately becomes commercial seeds for farmers would be developed with genetic engineering, gene editing, traditional breeding or a combination of these?

As a geneticist, to me, these are just technologies. To us, this overarching thought is how can we get to scale, how can we enable farmers to do something like this? It's different for every crop and every region. It becomes a question that will be only answered with the partners along the way, like talking to a seed company or to small breeders. They'll tell us, "look, this is feasible and we are confident that we can actually provide seeds to farmers at that time scale with that technology." For the US market, I think gene editing seems to be a very reasonable way to go. But then for other markets, like the European Union, it's a whole different thing. Whether it's breeding or gene editing or genetic engineering will be dependent on how promising these will be to achieve our goals of having these plants actually make a global impact.

Q: At this stage of the development, what would you like farmers to know about Salk Ideal Plants?

Farmers are the people who, in the end, will make a major contribution to solving the really big problems in this world: how can we provide more food, feed and fiber for a growing world population in the face of changing climate? I think it would be wonderful if they could start thinking about this and be open when the time comes. They might be able to try out a new seed variety, a Salk Ideal Plant variety, that will not only produce yield but also provide this additional service of making their soils better, which is hopefully great for them, but also at the same time, draw down some of that CO₂ that's causing all these problems.

Strawberry success lands tech firm funding for apple harvester

A company that has brought to the marketplace an autonomous strawberry harvester says it has raised \$25 million to mechanize apple picking. [Advanced Farm Technologies](#), maker of the TX Robotic Strawberry Harvester, said its original investors have re-upped for the apple project. Those investors include Kubota, Yamaha and Impact Ventures.

"We're still really focused on our core business in strawberries," said president and co-founder Kyle Cobb, "but we're so excited to see what we can do with these building blocks." Taking the design and software systems from the strawberry robot and modifying them for apples will present different challenges. But Cobb said when they tackled strawberry picking, they were solving many problems for the first time. Now that they have those solutions, they can tweak or adapt systems for new environments. For example, he said the red of a ripe strawberry may not match the desired red of an apple, but that's an adjustment not a whole new dilemma. The grippers and angles may need to change, but the fact of a robotic arm extending out and gently pulling on fruit is similar.

Cobb said the strawberry harvester can be operated by an unskilled human worker and because the machine can run for hours, the farm operation can get many more strawberries harvested for far fewer person-hours. What's more, he said, with farm workers in short supply and some of them getting older, becoming a robot operator offers a less physically taxing new career prospect. A person has to remove the harvested berries from the robot but otherwise is mostly just positioning the robot and using buttons and knobs, Cobb said. But he added that another new line of work down the road could be robot harvester technician.

Apple growers have been anticipating automatic harvesting for a long time, Cobb said, which includes thinking about what the trees will need to look like to accommodate the machine. He

said as his company begins work on its apple harvester, it's also looking to other fruit trees. "More and more commodities are starting to think about how they can structure themselves for automation," he said. Other stone fruits such as peaches, nectarines or cherries could follow and those sectors might not need to make major changes to their existing systems.

News Briefs:

Western Growers, S2G search for entrepreneurs for AgSharks pitch competition.

Western Growers is teaming up with S2G, a multi-stage venture fund investing in the agriculture market, to host the AgSharks Competition that will see startup companies going head-to-head to win a \$250,000 minimum investment. On November 9, five startups will be chosen to pitch their inventions to a panel of growers, shippers, processors and venture capitalists at the Western Growers Annual Meeting in San Diego, California. The competition will be accepting applications from entrepreneurs until Oct. 11. "AgSharks leads as the only pitch competition that offers agtech startups an audience with the biggest agricultural companies across the globe," Audre Kapacinskas, vice president at S2G Ventures, said in a [release](#). "The combination of exclusive access to hundreds of industry leaders plus investment capital to fuel growth are two elements that are crucial for a startup's success in this industry." The competition was first held in 2017 and previous winners include Hazel Technologies, which produces packaging inserts that release shelf-life enhancing vapor for produce, and Burro, which creates autonomous farming robots. "Our AgSharks Competition is an exciting and impactful event that has already yielded bottom-line benefits for our members," said Western Growers President and CEO Dave Puglia. "While there is much more we are doing to speed innovative technologies to our industry, AgSharks creates a special opportunity for agtech entrepreneurs to win the hearts and minds of growers on a very high profile stage. We're looking forward to this year's competition."

United Fresh pushing for infrastructure, labor action at fly-in. Members of the United Fresh Produce Association are in Washington this week looking to press Congress for action on a handful of key policy issues. Robert Guenther, the group's chief lobbyist, gave a rundown of the issues to members ahead of visits to Capitol Hill Tuesday. At the top of the list for the group was securing infrastructure legislation, addressing food safety challenges, improving access to fresh produce in federal nutrition programs and finding a resolution to the industry's long-running labor concerns. United Fresh is among the agricultural groups supporting the Farm Workforce Modernization Act, [which passed the House earlier this year](#) but has yet to be considered in the Senate. As a result, Guenther said more lobbying on that issue would be directed at Capitol Hill's upper chamber. "It's going to be a Senate discussion more than a House discussion since they've already done their job," he said. The bill lacks the support of the American Farm Bureau Federation, which argues the bill's current language could leave producers vulnerable to lawsuits from H-2A workers. Tom Stenzel, United Fresh CEO, said the group will hold about 90 congressional meetings this week, something that proved to be an organizational complexity in light of pandemic and security restrictions on Capitol Hill. The event will serve as the final standalone event held by [United Fresh before it is set to merge with the Produce Marketing Association at the beginning of 2022](#).

Tech challenge that focuses on small farms invites competitors. With a focus on bringing the latest designs, innovations and technology to small farms, the Community Alliance with Family Farmers (CAFF) has announced its second [Small Farm Innovation Challenge](#). The competition is open to anyone and the intent is to find new ideas that will help small farms succeed. "So many of the innovations we're seeing in agriculture today are not only designed for much bigger farms," said Evan Wiig of CAFF, "but they give larger farms yet another competitive edge." He says the goal of the Small Farm Innovation Challenge is to redirect some

innovators' gaze to smaller-scale food producers. The 2019 contest selected a semi-autonomous, electric, remote-controlled tractor as the top winner and that product is now in production as the FarmHand Tractor. Second place went to a software package that helps schools buy food from local farms and other entries focused on soil health, packaging and water efficiency, according to a statement from CAFF. Separate tracks for Entrepreneurial and DIY ideas allow entries for start-ups with commercial designs and people looking to share free tools and innovations. The deadline to enter is Nov. 1 and winners will be announced in February at the 2022 California Small Farm Conference.

Farm Hands West: Western Growers honor Carol Chandler

Western Growers will honor **Carol Chandler** with the 2021 award of honor, Western Growers' highest recognition of achievement. A partner of Chandler Farms in Selma, Calif., Chandler grows grapes, peaches, plums, nectarines and almonds. She currently serves as treasurer on Western Growers' board and serves on the University of California President's Advisory Commission on Agriculture and Natural Resources. She has been chair of the President's Water Task Force for California State University at Fresno and has held positions with the University of California Board of Regents, the California State University Board of Trustees and the Fresno State Board of Governors.



Carol Chandler

Governor **Gavin Newsom** has appointed **Samuel Assefa**, from Seattle, Wash., as the director of the Governor's Office of Planning and Research. Assefa has served as the director of the Seattle Office of Planning and Community Development since 2016. Before that, he was the senior urban designer for the Department of Community Planning and Sustainability for the City of Boulder.



Ted McKinney

The National Association of State Departments of Agriculture has tapped **Ted McKinney** to be the organization's new CEO. McKinney served as undersecretary for trade and foreign agricultural affairs at USDA during the Trump Administration. The Indiana native succeeds Barb Glenn, who has served as the NASDA CEO since 2014. McKinney helped negotiate the Phase One trade deal with China. Before his USDA appointment, he was director of the Indiana State Department of Agriculture. He also spent 19 years at Dow AgroSciences and 14 years at Elanco.

New York Department of Agriculture and Markets Commissioner **Richard Ball** is expected to be voted in as the National Association of State Departments of Agriculture President during the organization's business meeting later today. Ball is currently serving as vice president and succeeds

Kentucky Commissioner of Agriculture **Ryan Quarles**.

President **Joe Biden** has selected civil rights lawyer **Margo Schlanger** to be USDA's assistant secretary for civil rights. Schlanger teaches at the University of Michigan as a civil rights lawyer. She attended Yale University Law School and once clerked for the late Supreme Court Justice Ruth Bader Ginsburg. Schlanger was the presidentially appointed civil rights officer for the

Department of Homeland Security in 2010 and 2011, and she also has served as a trial attorney and senior trial attorney in the Justice Department's civil rights division. Her nomination has been sent to the Senate.

Roger Cryan will join the American Farm Bureau Federation on Oct. 4 as the new chief economist. Cryan has served as the director of the economics division for the dairy program at USDA's Agricultural Marketing Service for the past nine years. He previously served as vice president for milk marketing and economics at the National Milk Producers Federation for 12 years.

Jaelith Hall-Rivera has accepted the permanent role of associate deputy chief of USDA Forest Service's State and Private Forestry Branch. She has served as acting in this position since last year. Hall-Rivera began her federal career in 2001 with the Government Accountability Office as an analyst in the Natural Resources and Environment Division in Seattle.



Roger Cryan

Wyoming Governor **Mark Gordon** has appointed **Kate Barlow** to be the new agriculture policy adviser in his administration. Barlow served as lead agriculture policy adviser for the state's Republican senators, **Cynthia Lummis** and the late **Mike Enzi**. She most recently served as Lummis' lead policy adviser on agriculture, food safety, trade, judiciary, labor, social issues and Indian affairs. Barlow replaces **Joe Budd**, who departed to attend law school.

Morgan Beach is leaving the Pet Food Institute, where she serves as director of public affairs, and is heading back home to Missouri to work for Nestlé Purina in St. Louis, where she will be the regulatory and scientific affairs senior specialist. Before joining the Pet Food Institute two years ago, Beach worked for the National Milk Producers Federation as the trade policy manager.



Lisa Nunez Safarian

Lisa Nunez Safarian has been tapped to serve on Pivot Bio's board of directors. Safarian most recently served as president Bayer Crop Science, North America. Before that, she was vice president of North America for Monsanto.

Dan Glickman and **Jim Borel** have been asked to sit on GOOD Meat's board of directors. GOOD Meat is a division of Eat Just. Glickman served as the secretary of agriculture from 1995-2001. Before that, he represented the 4th Congressional District of Kansas for 18 years in the House of

Representatives. He currently serves as the executive director of the Aspen Institute Congressional Program. Borel is the former executive vice president of DuPont, where he worked for 18 years. Most recently, he has served as an outside director for the Renewable Energy Group and Farmers Edge, and also serves as an independent board chair for Neogen Corporation.

Scott Lay passed away at the age of 48 in his home in Sacramento. He was known as an advocate for community colleges and fought tirelessly to make higher education affordable and accessible for all who wanted it. He previously served 9 years as the president and CEO of the

Community College League of California. He most recently was known as the author of The Nooner, a newsletter on California politics and policy, which is published through Around the Capitol. He also wrote The Roundup, an email blast with the latest California news.

Best regards,

Sara Wyant
Editor

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