

DPR is investigating the environmental impacts of neonic-treated seeds

The Department of Pesticide Regulation (DPR), concerned about the potential for seed coatings to move from fields into the environment, is taking public comment through February on the use of seeds treated with neonicotinoids and other pesticides.

DPR has found limited information on the extent of use in California, the commodities involved and the active ingredients in the treatments. Pesticide-treated seeds are exempt from EPA review and do not fall under the state definition of a pesticide for review by the state agency. When the coating process takes place in California, the treatments must be registered, but not when the seeds are coated before entering the state.

Seed treatment products can contain many different active ingredients in different classes, but 80% of the 210 products in California identified by DPR staff have fungicidal claims. According to Jennifer Teerlink, an environmental program manager at DPR who presented at a public workshop on Monday, the products can provide localized plant protection and protect against both soil and above-ground pests. Some of the active ingredients are known as systemic pesticides, since they are absorbed into the plant and distributed throughout its tissues.

Most of the research has focused on seeds treated with neonicotinoids, since a high proportion of the products are used on cereals, oilseeds and cotton in the Midwest, according to Teerlink. About 80% of the corn planted nationwide is grown using pesticide-treated seeds. According to data from CDFA's seed enforcement branch, about 25% of the seed samplings conducted included a seed treatment product.

“From an environmental monitoring perspective, we're interested in understanding where the fate of that



Treated soybean seeds in Texas. (Photo: USDA)

coating ends up in the environment,” said Teerlink.

About 95% of the coating from the seeds remains in the soil or water, where it might move into the surface or groundwater, she explained. About 5% is taken up by the crop, while around 1% is introduced as dust. DPR is looking at how that dust could affect managed and wild pollinators through adjacent wildflowers, if birds are ingesting the seeds, or if water runoff from fields could be impacting marine ecosystems.

During the workshop, several environmental advocates charged that neonic-treated seeds have also been causing brain and heart damage in children. The CalEPA Office of Environmental Health Hazard Assessment would evaluate such human impacts through the standard regulatory process, if DPR finds reason to pursue a risk evaluation.

“We urge you to close this gaping loophole immediately,” said Jane Sellen, who co-directs Californians for Pesticide Reform. “We’ve been previously told by DPR that adding pesticide-treated seeds would be a major — even unprecedented — expansion of their regulatory scope. But we would argue that this is an acknowledgement of the sheer scale of the omission.”

Sellen contended the treated seeds allow for the use of pesticides not registered in California or banned entirely, such as chlorpyrifos, and sidestep DPR’s authority.



Asm. Rebecca Bauer-Kahan, D-Orinda

Last year DPR rejected a petition led by the Natural Resources Defense Council to regulate seeds treated with neonicotinoids. If approved, the proposal would have considered the seeds as restricted materials and have DPR promote regenerative agricultural practices in place of the chemical inputs.

“The use of neonic-treated seeds may represent one of the largest insecticide uses in the state of California,” wrote the environmental coalition in the petition, arguing that treated seeds apply up to 512,000 pounds of neonics annually in the state.

Following DPR’s decision, Bay Area Assemblymember Rebecca Bauer-Kahan introduced a measure in February that would have banned neonic-treated seeds entirely. She later pulled the bill as Assembly and Senate leaders urged lawmakers to cap the number of bills they were pursuing since pandemic precautions were limiting capacity for hearings in the Capitol.

California farm groups have yet to publicly engage on the issue. But during the DPR workshop, one farmer pleaded for agricultural interests to be incorporated into the decisionmaking.

“Please understand conventional agricultural practices, while not perfect, are responsible for feeding hundreds of millions,” he wrote. “It would be criminal for close-minded activists to run DPR.

With a grim outlook for salmon, California looks to upend the status quo in water policy

State officials have a “grim” outlook for California’s winter-run Chinook salmon along the Sacramento River. The deepening drought and rising temperatures are exhausting agency resources for managing the species to prevent extinction, and with long-term forecasts predicting little precipitation for Northern California in the months ahead, the state is making plans for worst-case scenarios and an emergency overhaul of water management in California.



Endangered Winter-run Chinook Salmon (photo: NOAA Fisheries)

“We’re beginning to watch the extinction of iconic species right in front of our eyes,” said State Senator Mike McGuire of Healdsburg, in opening a joint hearing on fisheries and aquaculture last week. “The worst-case scenario has played out.”

Nearly 80% of the eggs for winter-run salmon were likely cooked to death in the Sacramento River due to inadequate cold-water flows, according to an estimate from the National Marine Fisheries Service. Of the juvenile salmon that survived, another 18% are projected to have later perished due to high temperatures, leaving just a 2% overall survival rate.

“It’s grim,” said Chuck Bonham, who has directed the California Department of Fish and Wildlife (CDFW) for more than a decade. “It’s as worse as I’ve ever seen in my career.”

Bonham described the salmon population as falling into a “hydrologic hole” so deep that the state would need biblical levels of rain this winter to have enough water in the river for the species to survive. The salmon have also suffered from multiple consecutive dry years, including 2007-2009 and 2013-2015, leading to a long-term population decline. Competing interests for scarce water have also been a factor, according to Bonham, along with an increased deficiency in salmon diets in the ocean.

“We cannot get recovered salmon populations, if every several years we experience a dynamic where we have survivals in the single digits,” he said.

The latest salmon estimate from NMFS comes as the Northern California Water Association (NCWA), which represents nearly two million acres of farmland in the Sacramento Valley, is seeking to set the record straight on the status of salmon populations in the Sacramento River this year.

“There was generated a lot of hyperbole in the press regarding the health of salmon in the region and prognosticating the demise of the species as a whole,” said Todd Manley, the NCWA government affairs director, speaking at a recent meeting of the Association of California Water Agencies.

Manley acknowledged the impacts of the drought on fish populations but pointed out that more than 9,500 adult winter-run Chinook salmon still managed to return to the upper reaches of the river. **Based on CDFW carcass counts, this is the largest number of returning adults in the last 15 years and follows similar returns of 8,128 in 2019 and 7,428 in 2020.**

As far as water temperatures being too hot for fry and juvenile salmon, he said 200,000 fish had already made it the 60 miles downstream. Investments in side channels were “paying dividends on this stretch of the river,” he said.

But state biologists may not be able to fully validate the numbers until as late as next June due to a rigorous scientific review process, he explained.

Manley traced back the misleading headlines to one state employee responding to a reporter’s question about hypothetical worst-case scenarios.

Bonham recognized that the current year has been good for salmon fishing, with returns higher than usual, particularly in the Butte Creek tributary of the Sacramento River. But he cautioned that the fish have a three-year spawning cycle and those returning this year were raised during a wet period, when the State Water Project delivered the most amount of water on record. The current drought situation is likely to produce “very bad returns” for fish in three to four years, said Bonham.

The Legislature and governor have responded to the situation with a state budget that allocates \$9 million each for covering 26 CDFW staff for around-the-clock fish rescue and stressor monitoring along critical streams, and for about 40 projects to upgrade equipment for 14 hatcheries.

Another \$7 million has been set aside for modernizing hatchery fleets, such as the trucks and trailers used this year to ship 17 million salmon to the San Francisco Bay. The department also had to temporarily move endangered Coho salmon from a hatchery this year to holding tanks at a local high school to fix an infrastructure issue.

“We no longer can count on cold water from reservoirs coming into our hatcheries keeping the water cool enough to survive hatchery operations,” said Bonham, adding that CDFW is developing similar contingency strategies for next year, which will “just be a band aid.”



CDFW Director Chuck Bonham

Survival for salmon, steelhead trout and other endangered or threatened species has been further complicated by dams along the Central Valley Project and State Water Project, facilities that are indispensable for human health and safety, he explained.

“We are stuck in a situation thinking about water management of a scarce resource in a warming climate, and these fish cannot access historical habitat,” he said, noting the only option left is to transport the fish above the dams.

Bonham stressed that the state must prioritize water first for public health and safety and next for salmon.

“We need to think about next year outside our usual status quo mentality,” he said. “We need to be thinking about our reservoirs and their carryover as we head into the following calendar year, and then dealing with all the very important uses of water — our agricultural community, our wildlife refuges.”

McGuire blamed the situation on Trump-era biological opinions governing pumping operations in the Sacramento-San Joaquin Bay-Delta. He saluted recent actions by the Newsom administration to counter the federal regulatory rules.

The administration, however, triggered outcry from California Sen. Dianne Feinstein as well as several Central Valley Democrats and the state's Republican delegation after introducing a temporary new operations plan for state and federal projects as part of a settlement in a 2019 lawsuit against the biological opinions. The Biden administration, in coordination with state agencies, has agreed to replace the opinions following a regulatory review process.

The presiding judge in the lawsuit recognized that little agreement between the many parties involved in the lawsuit and in other related claims means “the court can only insert itself into the situation in the most blunt of ways.”

In response to the new operations plan, Friant Water Authority CEO Jason Phillips advised the administration that the more efficient approach would be to dismiss the litigation in favor of a voluntary approach. Phillips also argued the terms the administration has proposed for voluntary agreements would create an open-ended obligation for public water agencies to provide unspecified amounts of water flows and funds for habitat restoration, which would conflict with other legal obligations under an earlier settlement agreement.

The Newsom administration is also moving forward on the first phase of the Bay-Delta Plan approved by the State Water Resources Control Board in 2018, which dedicates a fixed portion of freshwater flows from tributaries south of the Delta to environmental benefits. The second phase, yet to be approved, would commit as much as 60% of the flows north of the Delta to environmental protections.

California Natural Resources Secretary Wade Crowfoot and CalEPA Secretary Jared Blumenfeld notified the impacted water districts last month that the state would no longer pursue a set of voluntary agreements (VA) over south-of-Delta flows.

“It is clear that despite considerable efforts, proposed voluntary actions by water agencies on the San Joaquin River tributaries have fallen short of needed flow and habitat improvements, and viable proposals are not being offered at this time,” the secretaries wrote in a letter.

Crowfoot had been a staunch advocate for voluntary agreements throughout his tenure in the Newsom administration, saying this would head off a decade or more of court battles that would stall any new actions. The letter leaves open the potential for the water districts to join voluntary agreements for Sacramento River flows if those districts agree to the administration's proposed flows and habitat costs.

Advocacy groups cheered the decision to move forward on the Bay-Delta Plan but urged the administration to go further with a more aggressive pumping plan and to drop negotiations over VAs in favor of the second phase of the Bay-Delta Plan.

During the legislative hearing, Doug Obegi, an attorney for the Natural Resources Defense Council, argued that



Sen. Mike McGuire, D-Healdsburg

while the new operations plan is better than the previous biological opinions, it fails to protect salmon and other endangered species. He described the VAs as benefiting those who maintain the status quo, particularly almond growers and agribusiness billionaires.

“The state continues to delay the state water board's regulatory process to update the rest of the standards in the Bay-Delta Plan, in pursuit of so-called voluntary agreements based on magical thinking about what salmon need,” said Obegi.

He called for the board to make permanent the emergency curtailments it issued in August for the Scott and Shasta rivers.

McGuire similarly called for more immediate actions than the more deliberative process of revising the biological opinions.

“I just don't know if we have time to be able to go through a traditional rulemaking process,” he said. “I have deep concerns about how long this is going to take and what the ramifications are if we don't move with speed.”

For more on how California rice growers are helping salmon populations recover, click here.

Q+A: Karen Ross' takeaways from COP26

CDFA Secretary Karen Ross recently returned from the COP26 climate conference in Glasgow, Scotland, where she talked about California's climate-smart ag programs and met with counterparts from around the world. She spoke with *Agri-Pulse* about her impressions. *This interview has been lightly edited and condensed.*



CDFA Secretary Karen Ross (right) with Irish Minister of State for Land Use and Biodiversity Pippa Hackett at COP26 in Glasgow, Scotland. (Photo via Twitter)

At COP26, what interest was there in California's climate-smart ag efforts?

I spoke two different times on methane. I spoke on Healthy Soils at an event sponsored by the French initiative “4 per 1000,” which California Department of Food and Ag has been a member of. And I spoke at a session on nature and biodiversity where I was afraid I'd be a fish out of water, but it was really a great conversation. The organizers were really glad to have somebody from ag.

California is ahead of United States federal policy on some climate matters, so that puts California officials in a particular light at an

international meeting. On the other hand, sometimes agriculture gets blamed for certain things at climate talks. How was it being a person who is in both of those worlds?

In all of the sessions where I was part of a panel, or talking about what we are doing in California, we were the ones that have a plan, are making investment, and are taking action. We're implementing things and that did stand out — that we are in the doing phase. In a sidebar session on healthy soils, the number of new member countries and governments and, now, companies that were there, trying to achieve their own targets on healthy soils, just showed me how much there is for us to be able to learn and network from others. For the folks who

organized the session on nature and biodiversity, I'm not sure that they have been thinking about farmers and ranchers on the landscape as being equally engaged in the kind of stewardship that that they're looking for. I felt like it really caught their attention.

Were there other things California is doing that seemed to especially be of interest to people from certain countries or parts of the world?

I did get a chance to do a very brief farm tour outside of Glasgow. The farmer's concern there is, we're about producing food, and doing it in an environmentally sustainable way. And it feels like the government wants us to be about doing environmental practices, and also producing food. So that's just one of my observations from the UK, because they're going through change post-Brexit. The water session that I was in had several folks from Africa. I did not see that much from South America, but that doesn't mean it wasn't there. Mexico was very, very active. Canada was very active.

Are there policies or strategies or ideas that you heard about that are things you've now got in the back of your mind that maybe will bubble up at some point to be relevant here?

Certainly, I came home reenergized and re-inspired because it feels like we're definitely on the right track. And, of course, we all want to do more faster. I'm thinking about what the next big curve ahead is. Some of it is this continued work on maximizing carbon sequestration. We're creating our soil carbon maps. Some countries have picked up on the FAO soil carbon sequestration potential maps, but there is a lot of uncertainty in that. It made me start thinking about, do we have enough to be able to map how we maximize carbon sequestration where we are? We're very focused right now on above-ground plants and woody biomass that can draw down carbon. There's still so much to learn about our roots and the deeper-rooted plants and what that can mean for soil sequestration. So that's kind of where my mind went. I'm excited to see the discussion on investment. Obviously, there were many who were disappointed, they wanted more pledges financially. I looked at how much money was pledged and I think that was pretty astounding.

What's a program or policy or action that you heard about someplace else in the world that you imagine might have a role in California someday?

I keep going back to soil health. In Japan, what they were doing for their woody biomass, for their trees and for their vine crops, is biochar. That's not a new idea. We continue to look at it but there is not quantifiable data at this point on rates and what the actual soil carbon sequestration benefits are. That's a challenging one to measure. There was a lot of conversation that I heard about fertilizers, the importance of good stewardship, good education about right amount, right placement, right timing. And also how to minimize emissions from fertilizer applications.

What will you look forward to at the next COP you attend?

Planning in advance so I can meet even more people in person for one-on-ones, even if it's only half an hour. For me, it would have been very helpful to meet with colleagues from more Mediterranean climates that have some of the same crops we have. In addition to being on panels, being able to better identify in advance which sessions I really, really want to be an observer at and learn from.

Any other takeaways?

People were very excited to know that we already have our Natural and Working Lands Climate Smart Strategy out for public comment. They were very interested to know that as part of that the governor's directed us to develop our 30 x 30 plan, which won't be out for a while. That got a lot of conversation in many different forums I was attending and technical assistance and capacity building were major themes in all of those sessions.

Agri-Pulse poll: Climate change concerns many farmers, but carbon payments far too low

A majority of U.S. farmers are at least somewhat concerned about climate change, and nearly half are using or considering practices to reduce greenhouse gas emissions, according to a new *Agri-Pulse* survey of U.S. farmers.

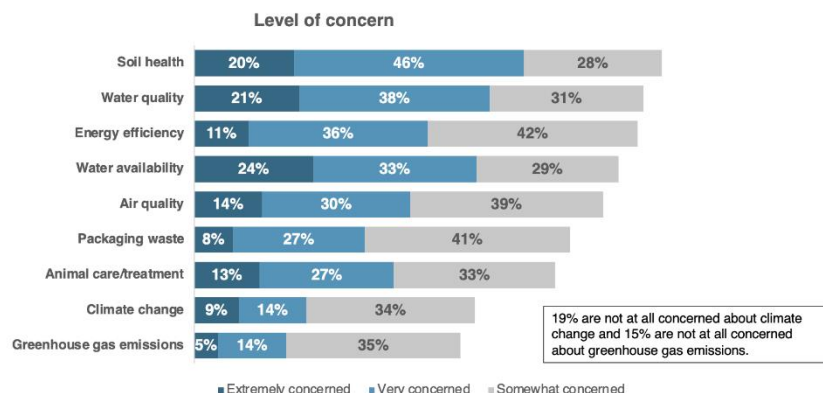
But getting most farmers to participate in carbon markets will require payments of at least \$40 an acre, far more than they currently earn, according to the online poll conducted by Aimpoint Research.

Some 57% of farmers expressed some concern about climate change, and even more farmers worry about soil health and water quality.

Both are issues inextricably linked with practices, such as cover crops and

conservation tillage, that can also reduce greenhouse gas emissions as well as prevent soil loss.

Key areas of concern are things that impact farmers and ranchers more personally.



Source: Total Farmers/Ranchers (n=589)
How concerned are you with each of the following?

CONFIDENTIAL 18

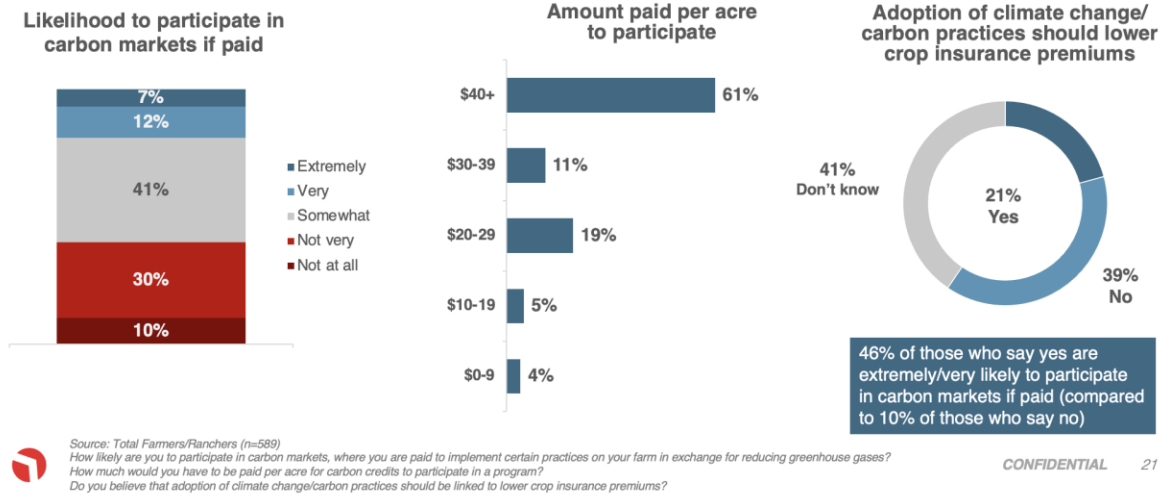
The survey of 589 farmers nationwide, a group that is heavily Republican, also found strong support for former President Donald Trump and dissatisfaction with the current direction of the country under President Joe Biden.

Biden has committed the United States to halving its greenhouse gas emissions by 2030, and agriculture and forestry are expected to play a significant role in those reductions, and farm and ag groups have been working to shape the administration's approach through a Food and Agriculture Climate Alliance that was announced a year ago.

The massive Build Back Better bill that Biden is pushing Congress to pass includes \$27 billion in new conservation provisions that are aimed at coaxing more farmers to adopt climate-smart practices. The funding includes a program that would pay farmers \$25 an acre for planting cover crops.

The *Agri-Pulse* poll makes clear that farmers will need significant financial enticements to adopt costly new practices.

Programs to incentivize carbon practices resonate among a small portion of farmers, but it comes with a high price per acre.



“We consistently hear that the market needs to be paying at least \$25-\$30 to get farmers on board,” said University of Illinois economist Krista Swanson.

The problem for many farmers is that the emerging carbon offset markets want farmers to take on practices that they aren’t doing already, Swanson said. “Often that takes hefty farm level investment without a clear or noticeable return to the farm,” she said.

The poll shows a clear openness to climate-related practices. Some 28% of farmers are actively implementing practices that reduce their operations carbon footprint, and 17% are considering doing so. Another 32% said they need to better understand the issue. The remaining 22% said they don’t believe there is a need for such practices.

Some 61% of those polled said they would need to be paid at least \$40 per acre to participate in carbon markets, while 11% would be interested if payments were worth at least \$30 an acre. Another 19% of farmers could get involved if they make at least \$20 an acre.

The surveyed farmers also were given a list of nine issues and asked to rate them as concerns for their operation. Soil health ranked as a concern for 94% of the growers, 20% of whom said they were extremely concerned with the issue. Water quality and energy efficiency followed close behind, rating as a concern for 90% and 89% of producers respectively.

Some 23% of farmers said they were very concerned or extremely concerned about climate change, while 34% said they were somewhat concerned.

“We hear more and more from farmers/ ranchers that the weather is more extreme than before,” said Ray Gaesser, an Iowa corn and soybean grower and former president of the American Soybean Association.

“The need to adapt is high on their list and from experience, they are pretty confident in the industry and their personal ability to innovate and adapt, including the possibility of changing crops.”

Bruce Knight, a conservation consultant who held senior positions at USDA during the George W. Bush administration, said the poll results suggest that farmers may adopt and stick to climate-related practices that have a "positive soil health attribute." That's important because farmers would be more likely to continue such practices when they stop getting paid for them, he said.

Gaesser agrees that it's likely to take payments of \$40 to \$50 an acre to get farmers involved in carbon markets. The \$9-an-acre payments that he said some farmers are getting now "is just not enough" given the long-term contracts growers have to sign, he said.

Gaesser, who attended the recent international climate conference in Glasgow, Scotland, serves on the board of Solutions from the Land, an organization that advocates for “integrated land management solutions” that can address climate change and food security while promoting economic development and protecting biodiversity.

The Bayer Carbon Program is offering \$9 an acre to farmers who use both cover crops and conservation tillage. Indigo Ag, one of several companies that is starting to buy and sell ag carbon credits, offers farmers a minimum of \$15 per credit; farmers can earn two credits per acre, depending on the estimated amount of carbon sequestration or abatement. The company in September announced its first payments to 267 growers.

Carl Zulauf, an economist at The Ohio State University, also isn't surprised at the amount of money farmers want in exchange for undertaking climate-related practices.

"Academic studies of private market returns to cover crops are far more variable in terms of agronomic costs vs. benefits than supporters of cover crops want to acknowledge," he said. "My discussion with farmers find the same division of outcomes."

The poll suggests that Biden will need to rely heavily on Agriculture Secretary Tom Vilsack to sell his ag policies. Some 75% of farmers surveyed are dissatisfied with the direction of the country and only 15% approve of the job that President Joe Biden is doing.

On the other hand, Vilsack's approval rating is at 52%; Vilsack is a respected, known quantity with farmers, having served all eight years of the Obama administration.

Some 29% of the farmers surveyed approve of the job that EPA Administrator Michael Regan is doing.

Farmers strongly backed Donald Trump when he was in the White House, and more than one-third of those polled are ready to support him if he runs for office in 2024. Most farmers also indicated an interest in another candidate. From a list of nine possible GOP candidates, 36% of the farmers picked Trump. Former Vice President Mike Pence was favored by 14% and Florida Gov. Ron DeSantis was selected by 11%. South Dakota Gov. Kristi Noem was favored by 9%. Only 13% of farmers said they wanted to re-elect Biden in 2024. As in recent past national surveys in farm country, the audience leans heavily Republican.

The farmers also were asked to give a grade to the 2018 farm bill. Nearly half, or 49%, give the legislation a “C,” while 39% chose “B.” Just 3% gave the law an “A” and 8% are apparently so

unhappy with the bill that they gave it a “D.” The farmers indicated they would like to see Congress give more attention to issues that affect their bottom lines, including commodity programs, crop insurance and trade.

Still, many farmers are either feeling better about their own operations than they were a year ago or at least no worse. Some 54% said conditions this fall are about the same as they were a year earlier, while 28% said things are better than in 2020.

Some 63% of the farmers said they would encourage their children to pursue farming as a career.

Climate-smart labels for food debated as part of USDA funding initiative

A potential “climate-smart” label for food and USDA’s authority to fund large-scale pilot projects using the Commodity Credit Corporation was among the many issues addressed in nearly 400 comments submitted on USDA’s proposed Climate-Smart Agriculture and Forestry Partnership Initiative.

The CSAF contemplates the adoption of pilot projects “to quantify and monitor the carbon and greenhouse gas benefits associated with those practices.” USDA said when it announced the initiative in September.

While in Glasgow for the COP26 climate conference, Ag Secretary Tom Vilsack talked up the new label, which is now simply an idea for how to incentivize low-carbon systems and provide a better return for farmers to adopt them.



Ag Secretary Tom Vilsack

“I think it would be beneficial for American farmers, if we had basically a standardized approach towards what a sustainably produced or climate-smart commodity actually consists of,” he said.

“In a sense, you’ve got organic crops and you’ve got the rest,” Vilsack said on a recent teleconference with reporters from the COP26 climate conference. “And this is, essentially, kind of the third category.”

First, however, “I think you have to have significant data collected about practices and the cumulative result of those practices from an environmental standpoint,” Vilsack said, which means there will have to be enough pilot projects with “sufficient size ... and sufficient participation by farmers of all sizes, to be able to allow us to begin collecting the kind of information and data that will allow us to establish the standard.”

“The market is demanding sustainability. The problem is the market doesn’t do a particularly good job of defining what sustainability is,” he said. “And that’s the purpose of this is ... to establish that standard and help to establish that value-added component to whatever is being raised through climate-smart practices.”

Vilsack said he expected USDA to start funding projects next year through its Commodity Credit Corp. authority. **“That’s based on the fact that what we're doing is we're helping to create and support a commodity, a climate-smart commodity,” he told *Agri-Pulse* in a recent interview.**

Commenters on the program generally liked the idea but had concerns.

The National Cattlemen’s Beef Association (NCBA) and Public Lands Council (PLC), for example, said they back private efforts “to develop new brands and labels to market beef, and urge USDA to support these efforts.” **However, they cautioned “against developing a federally managed marketing program that cuts against the value created by years of brand development in the private sector.”**

The National Milk Producers Federation, noting that there is currently no “U.S.-recognized sustainability standard,” said the dairy industry “would support developing and implementing a ‘green labeling’ scheme as a process verified program (PVP) ‘shield’ that dairy (and other commodities) can use to market sustainable dairy products.”

The National Cotton Council said USDA should “identify criteria that would enable partnering entities to make claims of a climate-smart product,” recommending that the “US Cotton Trust Protocol continue its work meeting sustainability metrics and expand to include metrics meeting USDA Climate Smart Product qualifications.”

The Environmental Defense Fund said the program could be a boon for early adopters of climate-smart practices, “who may not qualify to sell credits through carbon markets.” Instead, they could fetch a premium through the sale of climate-smart commodities.

The American Soybean Association noted standards are already in place for its growers.

“Most U.S. soybean farmers are already following the conservation regulations and farming practices outlined in the U.S. Soybean Sustainability Assurance Protocol (SSAP), an international marketing tool that uses a mass-balance approach to verify sustainable production at a national scale,” ASA said.

The protocol “is already supported by USDA and is positively benchmarked against international soy sourcing guidelines which include requirements for soy growers to continuously improve their sustainability performance. Soy that is verified sustainable under the SSAP allows companies to use a trademarked ‘Sustainable U.S. Soy’ logo on product packaging.”

The Organic Trade Association said climate-smart products should not be eligible for an accompanying label “based on the adoption of a single practice,” but on “a life-cycle analysis of the relevant product to ensure climate-positive outcomes of the entire soil-to-retailer process. CSAF should consider restricting climate-smart or climate-friendly labeling to producers or groups that can demonstrate net-zero carbon greenhouse gas emissions without the use of offsets.”

And the National Sustainable Agriculture Coalition warned that “weak standards and lax enforcement” could lead to “greenwashing.”

“Changes like incorporating methane digesters or single annual cover crops should not count as climate-friendly because they will not provide the permanent, additional carbon sequestration needed,” NSAC said. “Addition of single, annual cover crops to a simple corn-

soy rotation in the Midwest, for example, does not permanently sequester carbon and can offer the possibility for leakage of greenhouse gas emissions to other fields, operations, or sectors.”

In other comments on how to shape the program, digesters received a mixed reception and were sometimes criticized for incentivizing the expansion of climate-unfriendly practices. NSAC, for example, said that while they “convert an especially damaging greenhouse gas into a somewhat lower-impact greenhouse gas,” they also support “a system of agriculture that relies on high-emission inputs for its fertilizers, pesticides, transport, and its style of animal husbandry.”

On the flip side, digesters were touted by many ag groups as a way to reduce methane, a GHG at least 25 times more powerful than carbon dioxide in trapping heat. The American Biogas Council, which includes representatives from the dairy industry and anaerobic digester manufacturers, said “recycling organic material in a digester not only captures this destructive gas but also recycles the valuable nutrients needed for sustainable farming — nitrogen, phosphorus, potassium, calcium, sulfur, micronutrients, and more.”

Some questioned the use of the CCC as the authority for the program. NCBA and PLC, for example, said they had “significant concern” with the use of the CCC funds.

“USDA can play a valuable supporting role for producers and private markets by providing robust research and pilot projects,” the groups said. However, they added, “It is our shared concern that overinvestment in pilot projects would effectively create a new government program that directly competes with, and undercuts the value of, voluntary ecosystem service markets.”

And Food & Water Watch said USDA “may only rely on its discretionary powers to use CCC funds when it aims to expand or develop new markets for *agricultural commodities*. Neither ‘climate-smart’ agricultural production practices, nor industrial livestock waste or waste byproducts constitute ‘agricultural commodities’ as contemplated by the CCC’s enabling statute. Therefore, absent congressional authorization, USDA cannot lawfully move forward with this program.”

But the Natural Resources Defense Council said “scaling up investments in climate-smart agriculture and forestry, both through existing programs and new initiatives, will help farmers navigate financial, technical, and social challenges that may arise as they innovate, as well as ensure that public investments prioritize the needs of the most underserved populations and maximize benefits to public health, ecosystems, and local economies. Such investments fall squarely within the purposes and powers of the (CCC).”

Other commenters also said they were worried USDA’s program would interfere with already existing private carbon markets.

Specifically, on the question posed by USDA of whether it should “establish a consistent payment per ton of GHG generated through these partnership projects as part of the project payment structure, or evaluate a range of incentive options,” the Ecosystem Services Market Consortium said, “Unless USDA is considering purchasing credits on existing markets, it is unclear why the agency would set a price on GHG.”

There is already more demand than supply “for GHG offsets and insets in markets that generate validated and high-quality credits,” ESMC said, adding it “does not believe USDA should compete with private sector buyers in these markets, and thus should not be setting prices or purchasing credits.”

There were numerous calls for increased funding for existing USDA programs. NSAC, for instance, said the Conservation Reserve Program should receive additional resources “to maximize CRP’s long-term contribution to climate mitigation by allowing the economic use of tree crops.” In addition, CCC funding should be provided for the Grazing Lands Conservation Initiative, “which has lacked funding since 2008 despite being a clearly climate-friendly initiative.”

The Savanna Institute in Wisconsin, which supports the adoption of agroforestry practices in the Midwest, pushed for an expansion of funding and staffing for USDA’s National Agroforestry Center, to “support acceleration of adoption of woody perennial agriculture and conservation.

“For example, alley cropping, windbreaks, silvopasture, and woody riparian buffers have some of the highest carbon sequestration potential of any agricultural practices. But these are not seen as adaptable and scalable by many due to lack of regional research, evaluation, and demonstration,” the institute said.

The National Association of Wheat Growers said “USDA should also support expanded research of climate-smart practices in semi-arid areas and the resulting impact on food crops.”

USDA plans to have the program up and running in “the first part of 2022,” Vilsack said. “The hope would be that we wouldn’t take a very long time before we begin making decisions” about what pilots should receive support.

Brazil paves the way for biotech wheat with milestone approval

Brazil has given the green light to imports of flour made from genetically modified wheat that’s being grown and harvested in Argentina, creating a pathway for potential acceptance around the globe.

After about a year of consideration, the once obscure Brazilian regulatory agency CTNBio last week approved importation of flour made from wheat that is genetically engineered for drought tolerance. The decision came despite warnings from the domestic farming, milling and baking sectors.

Earlier this year, Trigall Genetics, a Uruguay-based joint venture of the Argentine company Bioceres and the French company Florimond Desprez, said it submitted approval applications for its genetically engineered HB4 wheat to regulatory agencies in the U.S., Australia, New Zealand and South Africa. The companies are also seeking approval for the wheat they say can better withstand drought conditions in Uruguay, Paraguay, Chile and Colombia.



Wheat harvest

Bioceres CEO Frederico Truco says applications for approval will be made in more countries soon.

The Argentine and Brazilian approvals are the breakthroughs that the companies are hoping will pave the way.

Argentina made the decision in 2017 to allow farmers to plant HB4 wheat on thousands of acres – effectively declaring the grain fit for human and animal consumption, with the provision that it could not be commercialized unless Brazil also approved it.

That controversial decision by Argentina was based both on science and commerce. Brazil is one of the top five wheat-importing nations in the world, according to data from USDA’s Foreign Agricultural Service. Brazil imports about 7 million metric tons of wheat annually, making up about half of the country’s annual consumption. Argentina supplied 77% of Brazil’s wheat imports for the first 11 month of the 2020-21 marketing year. In contrast, the U.S. supplied 5.7%.

Earlier this year, as the Brazil continued its deliberations on HB4, the Brazilian Wheat Industry Association, known as Abitriego, announced that millers were threatening to stop buying Argentine wheat if the approval was granted.

“In an internal survey promoted by Abitriego ... it was concluded that the wheat industries in Brazil are against the use of genetically modified wheat and almost all mills are willing to stop their purchases of Argentine wheat, if they start commercial production in that country and its export to Brazil,” the group said in a statement released earlier this year.

Brazil has only agreed to import flour – not the genetically modified wheat it is made from – but Brazilian millers are concerned that identity preservation measures will not keep HB4 from mingling with traditional wheat supplies.

Abitriego also issued a scathing assessment last week after the decision was published by Brazil’s CTNBio.

“Despite the strong rejection of the international market in the last 20 years, unfortunately, Brazil will become known as the first country to approve the use of transgenic wheat in the world,” Abitriego President Rubens Barbosa said in a statement. “This decision, fraught with uncertainties in the context of developments before the market and the international community, was taken based on criteria that affect safety, without further study of market conditions and consumer behavior ... The possible impact on Brazilian exports of by-products (pasta, biscuits and bread) and unpredictable breakdowns on the image of agribusiness cannot be ignored.”

The next step for Bioceres and Florimond Desprez is to get approval to grow its HB4 wheat in Brazil, and that effort is underway, Truco said earlier this month.

Truco said the companies do not see commercialization in the United States in the near term. “Our team made a formal submission for HB4 wheat production approval to the USDA in the United States,” he said. “Although this is not an immediate opportunity for us, certain regions of the U.S. represent attractive ... markets.”

The U.S. industry isn’t ready for genetically modified wheat. Wheat farmers could make use of the technology, but exporters are concerned that importers in major international markets like Japan, South Korea and the Philippines would reject all U.S. wheat if GE versions were grown commercially in the U.S., say industry sources.

Japan and South Korea both placed temporary restrictions on U.S. wheat about five years ago after a Washington state farmer discovered 22 unapproved genetically modified wheat plants growing in his fields.

The National Association of Wheat Growers and U.S. Wheat Associates say they recognize “the benefits and value which could be created within the wheat chain through the prudent application of modern biotechnology,” but only after major foreign wheat export markets have already approved imports and there are systems in place to keep transgenic and non-transgenic wheat separate.

Spokespersons for the two groups declined to comment for this story.

But farm groups in the U.S., Canada and Australia are in sync on the issue.

“We share the goal of synchronized commercialization of biotech traits in our wheat crops and timely regulatory approval for those traits in importing countries,” farm groups in all three countries said in a 2014 statement. “The coordinated introduction of biotech wheat will help maintain a healthy and competitive global marketplace. We recognize that we are still at the early stages of a process that could last up to a decade, but we remain committed to responsibly advance wheat innovation.”

Ag groups, schools press for clarity on 'Buy American' school lunch provision

School districts are joining some state agriculture and education departments in appealing to the Agriculture Department to create a list of food products that are exempt from Buy American requirements because U.S.-made versions are hard to obtain.

Some agriculture groups, meanwhile, are telling the department that the existing exemption rules are too broad and open to exploitation by foreign competitors.

The Buy American provision, added to the National School Lunch Act in 1988, requires school districts to buy products made and processed in the United States.

There are currently two exceptions that schools can use to buy non-American products: if the food or food product is not produced or manufactured in the United States in sufficient and reasonably available quantities of satisfactory quality, or if the cost of a domestic food product is significantly higher than the non-domestic product.



Diane Kurrle, U.S. Apple Association

Some schools say they are at the mercy of vendors who choose what supplies to give schools. The Urban School Food Alliance wrote that “many school food authorities include ‘Buy American’ clauses in their contracts, but cannot be certain that domestic product will be delivered.”

The alliance's concerns are included in 154 comments provided to USDA’s Food and Nutrition Service on the Buy American rule.

Many school districts acknowledged that the Buy American provision is well intended but said that due to low budgets and labor shortages, they are struggling to keep up with the required paperwork. The districts said they find the exemptions are helpful when shopping for goods that aren't widely produced in the U.S., like bananas, mandarin oranges and pineapple.

“As a foodservice director, my suggestion to Congress would be to continue to strongly encourage Buy American, and I truly believe the majority of us within school nutrition do all that we can to support USA products,” commented Heidi Wells, a food service director at the Milton School District in Milton, Kansas.

“However, I would strongly suggest that Congress ease up on the documentation requirements which often take away from our main focus — feeding children.”

The Urban School Food Alliance called on USDA to make food distributors more aware of the requirements and bar distributors who repeatedly violate the law from being suppliers in school feeding programs.

The San Francisco school district said its produce providers were not able to provide adequate domestic cherry tomatoes to meet demand in September and had to supplement with Mexican tomatoes.

“We didn't know about this situation until the tomatoes arrived at our school sites,” four representatives of the San Francisco school district wrote. “We do not have time to return tomatoes and wait for domestic products to be available as we are serving a record number of students this year.”

But, according to seven California state legislators who chair the state's agriculture, employment, education and budget committees, six of the schools reviewed in California were found to not have “adequate policies and procedures to implement Buy American laws.” The legislators went on to argue that the USDA should “minimize exceptions” and “maximize domestic procurement.”

One area of interest for schools, state agencies — notably the Florida Department of Food and Agriculture, the Utah State Board of Education and the Georgia Department of Education — and several other groups, is the creation of a defined list of “excepted” items by the USDA. This list, as noted by USDA in its question on the subject, would consist of products that “have been determined as not produced in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.”

“There should also be a list of items that are not available in the U.S. and therefore don't need justification — things like bananas, mandarin oranges, etc,” wrote Sara Sheridan, the school nutrition coordinator for Hall County School District in Gainesville, Georgia. “The constant document-keeping puts undue burden on school districts, especially when using American-made products does not necessarily impact food quality.”

Independent Bakers Association President Nicholas Pyle wrote that such a list should include imported oats, because the **“quantity and quality of food-grade U.S.-grown oats are simply not sufficient to meet consumer demand or quality expectations.”** This point was also made by the North American Millers' Association.

Tuna processor Chicken of the Sea called for a tuna exemption, citing quantity and cost issues. **Most of the commenters agreed that the “significant cost” exemption is vague, though there were disagreements over what should be done with it.** The U.S. Apple Association, which

argues 80% of the apple juice served in schools comes from China, called it a “vague standard with inconsistent application” and wanted to see the exception removed entirely.

“Instead, its application has disrupted U.S. sales into school food programs,” Diane Kurrle, the senior vice president of the U.S. Apple Association, wrote. “Particularly at the present time when the entire U.S. food industry is working to recover from the disruption of COVID-19, this cost exception is an open invitation for foreign suppliers to take over our school food markets.”

This stance is shared by several agricultural groups including the California Canning Peach Association, the National Council of Farmer Cooperatives, the Pacific Northwest Canned Pear Service, Pacific Coast Producers, the Northwest Horticultural Council, the National Family Farm Coalition, Sunsweet Growers, the Agricultural Council of California, the Apple Processors Association, the California Walnut Commission, the California League of Food Producers, the International Brotherhood of Teamsters, and Pacific Seafood Group.

Others — like the National Farm to School Network, the Florida Department of Food and Agriculture, the American Commodity Distribution Association, the California School Nutrition Association and the Utah State Board of Education — did not call for the removal of the exception, but instead for it to be more specifically defined.

Nicole Meschi, president of the California School Nutrition Association, said the undefined nature of the provision “has created a challenging dilemma for school nutrition operators.”

“In one case at a large district, after requesting pricing for both domestic and imported goods, the district’s purchasing department determined that the differential came to more than \$1 million for the contract year and awarded for the non-domestic product, unleashing a firestorm in the media,” she noted.



Nicole Meschi, California School Nutrition Association

The School Nutrition division of the Georgia Department of Education argued USDA should not define “significant,” instead saying it should be up to the districts to decide.

“As a state agency, this is a local decision, and districts use different criteria based on their situation,” the agency stated.

The United Fresh Produce Association — which represents produce growers, wholesalers, shippers, processors, foodservice operators and other players in the industry — said while the Buy American requirements have been “an effective and positive tool to ensure a priority for U.S. grown products,” the exceptions have also been a tool to make sure students have access to fresh produce. UFPA urged the USDA to not provide additional requirements or restrictions on school nutrition programs when enforcing the Buy American provision.

“Ultimately, while we support the spirit of the Buy American provision, we urge that its implementation not impact students’ access to fresh fruits and vegetables and put an undue burden on schools and their supplier partners, both of whom are simply trying to provide the most nutritious, flavorful, and consistent meals to children at school,” Mollie Van Lieu, a senior director of nutrition policy at United Fresh, wrote.

Solar growth fuels new questions, opportunities for landowners

Founder of Bare Honey Dustin Vanasse is involved in a four-way win-win. The largest solar-grown honey company in the United States, Minneapolis-based Bare Honey contracts with Minnesota and Iowa landowners to locate hives outside solar panel arrays, and he doesn't have to pay to use the land.

Solar developers, who have committed to growing pollinator-friendly ground cover in the understory of the panels, are already paying the landowners to use the land, giving Vanasse's honeybees access to a free pollen feast.

At one of Bare Honey's 16 sites, the landowner grows fruit trees that are dependent on Vanasse's honeybees and native pollinators attracted to the site. In addition, the landowner grazes sheep inside the locked fence securing the panels, and the developer sells the solar-generated electricity to the grid, benefiting society.



Greg Barron-Gafford, University of Arizona

“The pollinator-friendly native plantings increase the health of our hives, and the farmers benefit from the pollinators,” Vanasse said. Bare Honey's bees produce 20 tons of honey and 30% is solar-grown, but Vanasse plans to expand that part of his business.

Agrivoltaics — derived from the words agriculture and photovoltaics — creates a symbiotic energy system. Not all solar farms are agrivoltaic, but these systems are getting more attention due to concerns that solar land leases take farmland out of production.

According to Rob Davis, communications lead for Minnesota-based Connexus Energy — a rural electric cooperative that purchases a growing share of its electricity from these types of partnerships — fewer than 400,000 acres are dedicated to ground-mounted solar projects in the United States today, with most of those acres farmland.

The Net Zero America lab at Princeton University projects that by 2050, more than 9.5 million acres will be needed to meet climate goals, while the U.S. Department of Energy predicts 6 million acres will be needed. That means between 0.7% and 1% of today's 896 million acres of U.S. farmland could be covered in solar panels by 2050.

According to a University of Oregon study, solar development requires flat land, located in areas that are not too hot and not too dry, but still mostly sunny — in other words, farmland.

Jen Bristol, a spokesperson for the Solar Energy Industries Association, said her organization expects substantial solar development in rural and agricultural areas as demand for solar energy skyrockets.

“That demand is coming from utilities, corporations, residential customers, and state and federal governments.” Bristol said. “Solar power provides affordable, reliable, non-polluting energy and can be compatible with agricultural uses.”

For those whose land is suitable for these systems, the payoff can be lucrative; but not all landowners will be given the opportunity to lease their land to a solar developer. In

addition to having suitable land in a location conducive to solar power generation, a landowner would need to be within a certain distance from a major substation or near the right size and type of power line for a developer to be interested.

University of Arizona agrivoltaics researcher Greg Barron-Gafford said it is clear that solar on rooftops is not scalable to meet climate goals, and energy is expensive to transport.

“Developers don't want installations in the middle of nowhere. It costs up to \$1 million per mile to build the infrastructure needed to transport energy. They are looking at peri-urban areas,” Barron-Gafford said.

Eric Udelhofen, development director for Seattle-based OneEnergy Renewables, said since his firm was founded six years ago, it has developed 25 solar projects ranging in size between 6 acres and 60 acres in Wisconsin, Illinois, Iowa, and Minnesota. All the understories are planted to pollinator-friendly ground cover and sheep graze four of the projects.

“We are doing about seven to eight projects a year,” Udelhofen said. “And I would expect to continue or accelerate that pace. We are probably on an accelerating trend.”

To locate suitable projects, OneEnergy sends out mailers and makes phone calls to landowners with suitable land located within 10 miles of a substation but close to a three-phase line with distribution of less than 69 kilovolts.

“About 10% of those people reach back out to us,” he said. “The common thread is that they are interested in solar or renewable energy.”

Some are successful large-scale grain operations, others are absentee landowners who already rent their land for ag production, and still others own dairies or grow fruit and vegetables, he said.

Brian Brurandt, vice president of power supply and business development at Connexus, said farmers are “calling us when they realize solar rents are \$1,000 per acre. A lot are nearing retirement and their family and kids don’t want to take over the farm. The 25-30-year solar lease becomes an annuity.”

According to the Purdue University-CME Group Ag Barometer, 32% of the survey’s 400 participants in June and July said they were aware of solar opportunities. Of those, 18% and 29% in June and July, respectively, had engaged in discussions with a solar developer. And of those who entered into discussions, 35% and 27% in June and July, respectively, were offered \$1,000 per acre or more to lease their land, while 22% and 32% in June and July, respectively, were offered less than \$500.

For those with suitable land in an ideal location, solar leases can reach \$2,000 per acre per year, and some contracts have annual escalators of 1-5%. The economic decision for landowners, of course, is whether crop production yields a larger margin than the solar lease. But there are other concerns as well, including aesthetics and any blowback landowners might receive by taking farmland out of production. Providing electricity to the community or using the understory for some type of agricultural production can not only generate community support but also raise the margin.

“A lot of plants appreciate being in the shade, and solar panels do not compete for water,” said Barron-Gafford. “Potatoes do exceptionally well in Arizona (under solar panels). They

have twice the production. Chile peppers also yield twice as much, and tomatoes slightly more. We can also produce more basil and cilantro in the shade compared to full sun. Historically, basil and cilantro use a lot of water. Shading the plants throughout the midday when it is really hot, can cut irrigation use by 50%.”

The University of Illinois Urbana-Champaign, University of Arizona, Colorado State University, Auburn University, University of Illinois Chicago, and the National Renewable Energy Laboratory received a \$10 million grant through the Agriculture and Food Research Initiative-Sustainable Agriculture Systems at USDA’s National Institute of Food and Agriculture to study agrivoltaics across several distinct climate zones with varying degrees of dryness and lengths of the growing season.

The research team is looking at how high off the ground panels would need to be raised to accommodate large-scale agricultural production, what the cost would be to elevate the panels, and how far apart the supporting posts would need to be to accommodate farm machinery. Traditional solar panels are 2.5-3 feet off the ground, which only allows for pollinator plants, grazing, and hand-picked crops.

“Engineers are thinking of new solutions, such as spacing the posts 45 to 50 feet apart and using a tension support system that can handle high winds,” Barron-Gafford said. “Germany already has panels that are 15 to 20 feet off the ground.”

He believes the water shortage in the West will tilt some farms toward agrivoltaics, and many retired farmers and urban dwellers who own farmland will find solar leases attractive.

“A landowner could lease the overstory to solar production and lease the understory for food production,” Barron-Gafford added. “Over the next five years, we will see way more production.”

News Briefs:

Fresno County is again nation’s top ag producer. Fresno County is the top agricultural producer in the country for the third year in a row. The county’s 2020 Crop and Livestock Report showed total agricultural production value in the county increased nearly 3% to \$7.98 billion. The top three crops in the county were almonds, grapes and pistachios, with almonds staying at number 1 despite a drop in total value compared to 2019. California counties make up 7 of the top 10 ag producers in the country, with the other six being Kern, Tulare, Monterey, Stanislaus, Merced and San Joaquin. “California grows more than a third of the country’s vegetables and two-thirds of the country’s fruits and nuts,” said Fresno County Farm Bureau (FCFB) CEO Ryan Jacobsen in a statement, “with a majority of that coming from right here in the San Joaquin Valley.” The County also exports 72 different products to 101 countries around the world, according to FCFB. California requires counties to produce annual crop reports and the Fresno County department of agriculture presented its 2020 report to the Board of Supervisors Tuesday.

Duda Farm Fresh Foods invests in online purchasing tool. Duda Farm Fresh Foods announced the investment in an online product purchasing tool that will allow their Dandy branded products to continue meeting shoppers needs post-pandemic. The leading grower of fresh vegetables and citrus said the new tool will enable shoppers to go to the product locator page on their website then click ‘Buy Online.’ Nichole Towell, senior director of marketing and packaging procurement at Duda Farm Fresh Foods, said the move represents the “next phase of meeting consumer expectations.” In a release, the company said this new asset will not only benefit sales for Duda Farm Fresh Foods, but retail partner sales as well. The company will be

investing in more marketing to bring awareness of this tool to consumers to drive traffic and ultimately increase product purchases for its retail partners. “At Duda Farm Fresh Foods, we are committed to innovation and forward thinking,” said Sammy Duda, president of Duda Farm Fresh Foods. “This ‘buy online’ investment is just one of many ways we are responding to trends to keep consumers and our customers happy.” Duda Farm Fresh Foods also recently launched the Dandygram, a bi-weekly market update to keep its customers informed about crop conditions, product availability, and market insights.

Public input sought for ag land repurposing plans. The Department of Conservation (DOC) wants to hear from people about how to set up the \$50 million Multibenefit Land Repurposing Program established by the legislature this year. The goal is to hear from stakeholders in the Central Valley about what uses they would like to see for acres removed from irrigated agricultural use. As the Sustainable Groundwater Management Act is implemented, legislators estimate hundreds of thousands of acres will be fallowed. “That’s unavoidable at this point -- but the consequences don’t have to be,” said Asm. Robert Rivas (D-Salinas) in September. “I’m thrilled that the Legislature has established and funded this innovative new program via SB 170. Proactively repurposing land will help protect our water, our environment, and our communities all at once.” Fallowed land could be used for recreation, ecological restoration or even cattle grazing, according to a white paper from the Environmental Defense Fund. DOC is holding virtual workshops, open to the public, on Nov. 30 from 10 am – noon and Dec. 2 from 2-5 pm.

USDA awards \$25 million in Conservation Innovation Grants. USDA is awarding \$25 million to conservation partners across the country for 18 new projects under the Conservation Innovation Grants (CIG) program’s On-Farm Conservation Innovation Trials, including four projects and more than \$5.5 million in California. This year’s awarded projects increase the adoption of new approaches and technologies to help agricultural producers mitigate the effects of climate change, increase the resilience of their operations and boost soil health.

“On-Farm Trials enable partners to work with producers to test and adopt new climate-smart systems on their operations that support agricultural production and conserve natural resources, while also building climate resilience,” said Carlos Suarez, NRCS State Conservationist in California. Awarded Projects in California include:

- **Climate-smart Irrigation for Drought, Fertility, and Structural Resilience in Almond Systems (California)** *University of California, Davis*, will incentivize almond growers to adopt deep root irrigation, pressure compensated subsurface drip irrigation and Hybrid Pb. Hybrid Pb is a new cool-season grass cover crop which differs from traditional cover crops in that it is perennial with a decadal lifespan, and it is dormant in the summer.
- **Decision Support System for Irrigation with Limited Water (California, Oregon)** *Irrigation for the Future* will demonstrate an advanced decision support system designed to calculate the productivity of water and optimize the economics of irrigation management field-by-field.
- **Stacking Climate-Smart Agriculture and Pollinator Conservation to Leverage Market-Based Incentives (California, Maine, Montana, Oregon, Washington)** *Xerces Society* will demonstrate, evaluate, and quantify conservation practices designed to maximize the dual goals of climate-smart agriculture and pollinator conservation at the farm level.
- **Addressing Barriers for Historically Underserved Producers in California’s San Joaquin Valley to Implement Combined Soil Health Practices through Participatory Planning and Evaluation on Diversified Farms (California)** *The Regents of the*

University of California will address barriers faced by small-scale historically underserved producers to adopt soil health practices and systems. The project will build flexibility for producers to adapt practices to the unique circumstances of their operations and to test the performance of various practice combinations.

Farm Hands West: Mangapit tapped as Western Growers' chief operating officer

Western Growers has named **Steve Mangapit** as the organization's first chief operating officer, effective in January. He joins Western Growers from AP | Keenan, where he served as vice president of the health plan administration company. Before that, Mangapit worked four years with Western Growers Assurance Trust/Pinnacle Claims Management.



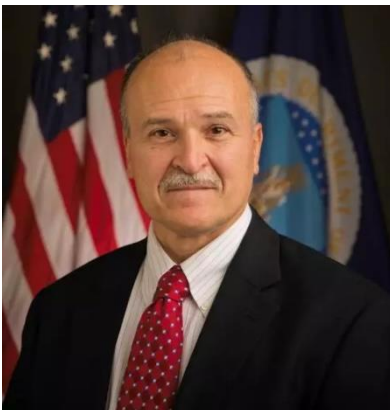
Steve Mangapit

Jacob Villagomez has joined California Citrus Mutual as the new director of state governmental affairs. Villagomez previously worked in the state Senate as the district director for state Sen. **Melissa Hurtado**, District 14.

USDA's Natural Resources Conservation Service has appointed **Allen Curry** as the new assistant state conservationist for field operations in Salinas and **Johnnie Siliznoff** as the new assistant state conservationist for field operations in Fresno. Curry currently serves as the district conservationist in Indio. Siliznoff currently serves as the acting district conservationist in Fresno and was previously the district conservationist in Madera.

Geralyn Lasher has been appointed as director of the Great Lakes States for the Wine Institute. Lasher currently serves as a commissioner on the Michigan Liquor Control Commission. She has previously served as communications director for Michigan Gov. Rick Snyder; was director of the Michigan Department of Community Health infrastructure services division, and MDCH's director of the communications, training and performance support division. She also served as senior deputy director for external relations and communications at the Michigan Department of Health and Human Services.

Bonny Iten has joined the sales team at Live Oaks Farms, working out of the company's Le Grand location. Iten brings 10 years of ag sales experience to the job, previously working in organic vegetable sales at WestFresh Distributing.



J. Emilio Esteban

Harlan Ewert has been tapped to be Verdant Technologies sales-director west. Ewert has spent the last 30 years working with The Kroger Co., most recently as produce category manager.

President Joe Biden has picked Jose Emilio Esteban, to serve as the next food safety undersecretary. Esteban has served as USDA's FSIS chief scientist since 2018, and has been with the agency since 2001. In addition to his chief scientist role, Esteban has also worked in various laboratory roles at FSIS, including executive associate for laboratory services and laboratory director for the western laboratory.

The Senate on Tuesday confirmed an important member of Agriculture Secretary Tom Vilsack's team at USDA, approving the nomination of **Robert Bonnie** to be undersecretary for farm production and conservation. The vote was 76-19.

USDA has announced three new individuals who will hold senior positions. **Shefali Mehta** has been tapped as the deputy undersecretary for research, education, and economics. Mehta joins USDA from Open Rivers Consulting Associates, where she served as the founder and principal of strategy and implementation. Before that, Mehta was the executive director at the Soil Health Partnership. **Marcia Bunger** was named administrator of the Risk Management Agency. Bunger has served the last 18 years as a county executive director in South Dakota for the Farm Service Agency. She has also served 15 years on the South Dakota Advisory Council to the U.S. Commission on Civil Rights. **Colin Finan** was selected to serve as senior adviser for the National Institute of Food and Agriculture. Most recently, Finan served as vice president at McCabe Message Partners, a Washington based public relations firm focused on healthcare communications.

Biden has nominated **Robert Califf** to lead the Food and Drug Administration. Califf was FDA commissioner from February 2016 to the end of President **Barack Obama's** presidency in January 2017. He was previously FDA's deputy commissioner for medical products and tobacco for a year. Califf also has been a cardiology professor and vice chancellor for clinical and transitional research at the Duke University medical school.

Biden selected **Mitch Landrieu** as the senior adviser who is responsible for coordinating the implementation of the newly signed in to law infrastructure legislation. Landrieu has previously served as the lieutenant governor of Louisiana and mayor of New Orleans.

Vijay Das is settling into his new role as the senior government affairs lobbyist for the Food Research and Action Center. Das previously served as the senior campaign strategist at the public policy think tank Demos. He was also a healthcare policy advocate at Public Citizen's Congress Watch division. Das also worked as a policy fellow for the California Attorney General.

The Consumer Brands Association has brought on **Rhonda Bentz** as the organization's new executive vice president of public affairs. Most recently, Bentz served as vice president of paid media and strategic initiatives at the American Petroleum Institute.

Scott Dahlman has joined CropLife America's government affairs team as the new director of state government affairs with a focus in the western region. He succeeds **Jeff Case**, a 39-year agriculture policy veteran who is retiring from CLA next year after 15 years. Dahlman most recently served as the state registration and regulatory affairs manager at FMC, leading regulatory efforts in Washington, Oregon, California, and Arizona. He previously led Oregonians for Food and Shelter and represented farmers and ranchers on regulatory issues for the Washington Farm Bureau.

Sarah Adams Wilbanks has been selected as CEO of the Association of Official Seed Certifying Agencies, effective Dec. 1. She will succeed **Chet Boruff**, who will retire on Dec. 31. He has served as CEO since 2004. Wilbanks currently serves as assistant director of the Department of Fertilizer Regulatory and Certification Services at Clemson University.

The Environmental Working Group has promoted **Anne Schechinger** to be its new Midwest director and named **Sarah Porter** as the new geospatial director. Schechinger has been a senior analyst at EWG for more than seven years, focusing on agricultural and environmental economics. Porter has also been a senior analyst for the last three years and before that she

worked for USDA, conducting agricultural research and developing precision conservation planning tools.

Jill Damskey has been selected to serve as California's first ever pork ambassador as an employee of the California Pork Producers Association, headquartered in Sacramento. Requirements of California's Proposition 12 initiative will take effect in January.

Lillie Brady has taken a new job with Cornerstone Government Affairs as a senior associate. She previously worked as a government affairs associate at Corteva Agriscience and before that was at USDA in the Office of Intergovernmental and External Affairs.



Jill Damskey

Betsy Huber has been elected to a fourth term as president of National Grange. Huber was first elected as president in 2015.

Cyndi Johnson, a wheat farmer from Conrad, Montana, has been elected president of the Montana Farm Bureau Federation, making her the first female president in the organization's history. Elected as vice president was **Gary Heibertshausen**, an Alzada, Montana, sheep rancher.

The Association of Equipment Manufacturers has announced its 2022 officers for its board of directors. Serving as chair is **Robert Crain**, senior vice president of customer experience for AGCO Corp. **Rod Schrader**, chairman and CEO of Komatsu America Corp., has been tapped as the vice chair. Serving as the ag chair is **Todd Stucke**, senior vice president of marketing, product support, and strategic projects of Kubota Tractor Corp. **Stephen Roy**, president of region North America for Volvo Construction Equip., has been selected to serve as the Construction chair. Serving as treasurer is **Linda Hasenfratz**, CEO of Linamar Corp., and serving as secretary is **Megan Tanel**, president of AEM.

The U.S. Meat Export Federation has announced new officers for 2022. Serving as chairman is **Mark Swanson**, chief executive officer of Colorado-based Birko Corp., succeeding **Pat Binger** of Cargill Protein North America. **Dean Meyer**, a corn, soybean and livestock producer from Iowa, is the new USMEF chair-elect. **Randy Spronk**, Minnesota pork producer, will serve as vice chair and the newest officer is **Steve Hanson**, a rancher from Nebraska.

Best regards,

Sara Wyant
Editor

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