



almond facts

NEWS, VIEWS, AND INDUSTRY INSIGHT

NOVEMBER–DECEMBER 2021



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111th Annual
Growers Meeting

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10 FIELD TEAM

12 NEWS IN A NUTSHELL

20 GROWING THE GOODNESS

24 ADVOCACY REPORT

28 ANNUAL GROWERS MEETING

38 IN YOUR ORCHARD

50 CLASSIFIED ADS

Features

6 President's Corner

Taken from his 2021 annual meeting speech, President and CEO, Mark Jansen, expresses the importance of partnership as a key factor in our success as a co-op. Instead of our planned \$.13 beat, *Blue Diamond* delivered an incredible \$.23 competitive return advantage.

8 Chairman's Message

Blue Diamond's Chairman of the Board, Dan Cummings, congratulates new board members, names the 2021 Grower Ambassador of the Year Award Recipient, and several other updates for the year.

20 Celebrating the 35th Anniversary of "Can a Week" Campaign

To celebrate the anniversary of "Can a Week," we heard from several growers who were part of the 1986 campaign on their experiences and shared photos to look back and enjoy.

38 Honey Bees Indoors

Over the last several years, indoor storage has been rapidly gaining greater popularity among US commercial beekeepers and an increasing number of colonies are spending time indoors.

ON THE COVER:

Blue Diamond wishes you a very Happy Holiday Season!



● BOARD OF DIRECTORS

Dan Cummings, *Chairman of the Board* | Chico

Dale Van Groningen, *Vice Chairman* | Ripon

John Monroe | Arbuckle

Kevin Fondse | Ripon

Stephen Van Duyn | Modesto

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Matthew Efird | Fresno

Kent Stenderup | Arvin

Joe Huston | Monterey

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Dean LaVallee, *Chief Financial Officer*

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Blue Diamond, the world's largest processor and marketer of almonds, exports to over 100 countries.

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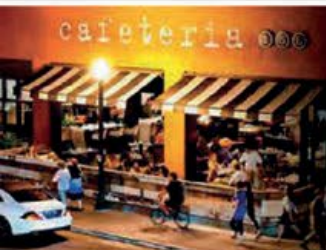
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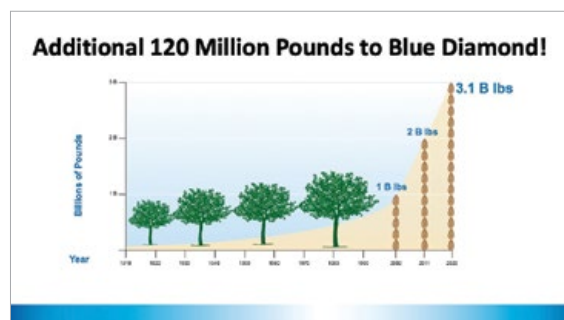


Mark Jansen
President & CEO

Annual Meeting 2021

Today, we recognize partnership as one of Blue Diamond's 5 core values. Last year, the importance of partnership was never more important.

In 2020, Blue Diamond Growers harvested a monster crop. The additional 120 million pounds alone were equivalent in size to the 3rd largest almond handler. Years of investment in markets, infrastructure and people made it possible for your co-op to gracefully handle all those almonds.



Lesser known and as important as our impressive performance, is how the spirit of our partnership allowed Blue Diamond to deliver a record competitive return advantage.

In the spring of 2020, with very healthy trees and perfect bloom weather prices plummeted by over \$.80 a pound. Your executive team recognized that at these prices, many growers would no longer be profitable. We understood that the costs of all your key farm inputs were also increasing. Lower prices and higher costs are an ugly combination.

I recall our CFO, Dean LaVallee, saying "We need to help our growers." Fortunately, by building our global branded consumer franchise we are able to deliver incremental profit in lower priced almond markets. Last year, that work created a unique windfall. Any public company would have buried the profits and spent the money to make next year's targets easier. That is not who we are. We are a co-op in partnership with our growers. Our



executive team went proactively to your Board of Directors and said, "We can deliver incremental competitive return with these low almond prices. Instead of our planned \$.13 beat, we want to deliver \$.20." As you can imagine, your board agreed. What we could not have anticipated was the heroic performance of team Blue Diamond. As many of you have already seen in your patronage payment, Blue Diamond delivered an incredible \$.23 competitive return advantage. For a grower, this could have been the difference between losing money and having the profitability to continue investing in your farming operations.

Amazingly, in part due to your record yields, our total distributable payments were within 3% of last year. With higher prices for the 2021 crop, we not only survived, we thrived.

I am confident you agree, Blue Diamond's executive team is a dream team with the best people in the business. When you get the chance to meet them in person, please thank them for their integrity, partnership, and for finding ways to deliver extra payments when you most needed it. Special congratulations to Dean LaVallee for taking on new responsibilities in his promotion to COO and CFO.



Good news, almond prices have returned to more normal levels, up at least \$.50 from last year. Accordingly, the impact from the extra profit windfall earned by our consumer business is reduced. We are back to our return glide path and targeting a healthy \$.14 return advantage.

Even better news is that your payments will grow larger. We trust you will appreciate this progress.

Over the course of 35 years at *Blue Diamond*, there is one man, Bill Morecraft, who has led the sale of more almonds than anyone in world history. As *Blue Diamond's* Senior Vice President of Global Ingredients, he just completed his greatest ever performance as we successfully sold through the record 2020 crop. Nobody is more deserving of a standing ovation than Bill who will retire from *Blue Diamond* at the end of the year. Please join me in congratulating Bill for his many contributions to *Blue Diamond* and the California Almond Industry.



Through the last two years there are so many people worthy of recognition, and it all begins with our front-line workers in manufacturing and distribution. These everyday heroes account for more than 80% of our workforce. Our most important workday action is to ensure that each of us goes home safely. With years of work training, communicating, and living a safety culture; our success in staying operational

during COVID was made possible. In fact, our dedicated team members embraced the extra precautions that were necessary during the pandemic. We are proud to have kept our lines continuously operational. It is only appropriate that we say thank you for the quality work they do under unusually difficult circumstances.



Blue Diamond team members understand we have a noble purpose. With 3,000 farm family owners who entrust us with their year's work in the form of the almond crop. There are new challenges to delivering this mission. If you are listening to the business press, you will hear of near universal difficulties around supply chain disruptions, inflation, finding workers, the great resignation and new government regulations. While I cannot make promises to the impact of these still emerging threats. *Blue Diamond* leadership is planning and preparing to minimize any impact to your cooperative business. Every year presents new challenges as well as opportunities.

As you know, we have demonstrated an incredible talent for nimbleness in the face of major plant fires, large crops, short crops, pandemics, and perpetual change. I have incredible faith in everyone who plays a role in *Blue Diamond's* success. This is my 12th annual meeting and know that you trust me when I say at *Blue Diamond*, The Best is Yet to Come! ♦

Mark Jansen
President & CEO



Dan Cummings
Chairman of the Board



Chairman's Speech 2021 Annual Growers Meeting

I'm privileged to have served as Board Chairman for the past seven years and as your District 1 director since 2006. I'm especially proud to say I'm a third generation *Blue Diamond* grower.

I'd like to thank all our presenters in the annual meeting sessions as well as our sponsors and exhibitors for your support — Farm Credit, Bank of America, Semios, Suterra, Dave Wilson Nursery, Burchell Nursery, Teleos Ag Solutions, UnitedAg, Flory Industries, and Netafim.

Congratulations and welcome to our new Board Members — George te Velde from District 4 and Nick Blom from District 6. I'd also like to welcome our newest Board Member at Large, Kristin Daley, who joined us back in August and brings 30 years of experience in the food and ag industry in both strategy consulting and operations.

Thank you to Charlie Crivelli and Kevin Fondse for their commitment to the Board and service to the co-op. Our appreciation goes out to the rest of our Board members for their continued leadership: Vice Chairman Dale Van Groningen – District 3; Matt Efird – District 8; Dan Mendenhall – District 7; Kent Stenderup – District 9; John Monroe – District 2; Steve Van Duyn – District 5; and our other Director at-large Joe Huston. Your work on behalf of this cooperative is key to our success.

Thank you to all Grower Liaison Committee Members — we appreciate your dedication to our co-op.

Rising to the Challenge, our theme for this annual meeting, is a true testament to the obstacles we've overcome, starting with our record 3.1 billion-pound crop. It's truly amazing what our co-op has been able to accomplish over the last 12 months. We started the year by harvesting a record-sized crop larger than any we'd delivered before, and ended with a summer filled with water supply and drought concerns that forced tough decisions on the part of many of us.

But in looking back over the year, it is how we worked through the adversity and rose to the challenge that really showcased the strength of our cooperative.

One of the ways our growers demonstrated their strength is through an unwavering commitment to sustainability and to being stewards of the lands we farm. To further emphasize our co-op's commitment to Sustainability, this year we introduced the *Blue Diamond* Orchard Stewardship Incentive Program to encourage participation in the Almond Board's California Almond Sustainability Program, or CASP.

I am thrilled to report that one-third of the growers who participated in the program achieved the Gold level; and approximately two-thirds achieved Silver level and Bronze levels. Thank you to all *Blue Diamond* members who participated in the assessment this year. Congratulations and thank you for your commitment!

This dedication to stewardship and to doing the right thing is the very essence of the award I have the privilege of awarding to one *Blue Diamond* grower each year. The Chairman's Ambassador of the Year award recognizes outstanding service and unwavering commitment to the overall success of the *Blue Diamond* cooperative.



This year, one of our growers took on a very visible and time-consuming role on behalf of *Blue Diamond*, serving as the face of water efficiency for our industry on behalf of countless international and national media interviews. In the face of a drought that gained worldwide attention and questioned the very future of our industry, this grower offered viewers and readers an authentic portrait of almond farmers that was smart, strategic, and focused on the future.

This year's Chairman Ambassador of the Year is Christine Gemperle from District 6, an exceptional ambassador for our industry and for our *Blue Diamond* cooperative.



One of the keys to our success as a co-op is the connection between our grower-owners and our cooperatives' leadership, processing facilities and business functions. This year, Mark and his team restructured our Member Relations organization to make sure our field staff, our Regional Managers, had the resources needed to provide superior customer service to our growers. We created a northern and southern region and assembled a top-notch team within each.

We are committed to fostering the next generation of ag leaders and are proud of *Blue Diamond's* long-term partnership with the California Future Farmers of America. What an incredible legacy. This year, Giving Tuesday is on November 30, and I'm proud that *Blue Diamond* will once again match donations to FFA up to \$25,000 to help raise funds for those iconic blue jackets.

To further help nurture our future leaders, we remain committed to our *Blue Diamond Growers Scholarship Foundation*. This year, 24 aspiring young men and women were awarded scholarships so they can build a bright future for agriculture and in our communities. Thank you for the generosity of our growers in making these scholarships possible. Thank you, John Monroe, for your contagious energy and leadership of the foundation committee this year. For the first time, we have a new way to increase financial support for our scholarship program through online donations. I also look forward to the fundraising golf tournament returning this spring.

Finally, I want to highlight a program designed to inspire the next generation of leaders in our *Blue Diamond* co-op. We changed the name of the program from "Young Leaders" to "*Blue Diamond Leadership*" to broaden participation of all those interested in leadership. Due to COVID restrictions, the 2020 class that kicked off in January 2020 had a unique experience. Given all the starts and stops, we have invited those class members to return in June 2022 to finish their program alongside the new 2022 class that will kick off in January. ♦

Regional Managers



Vice President Member Relations

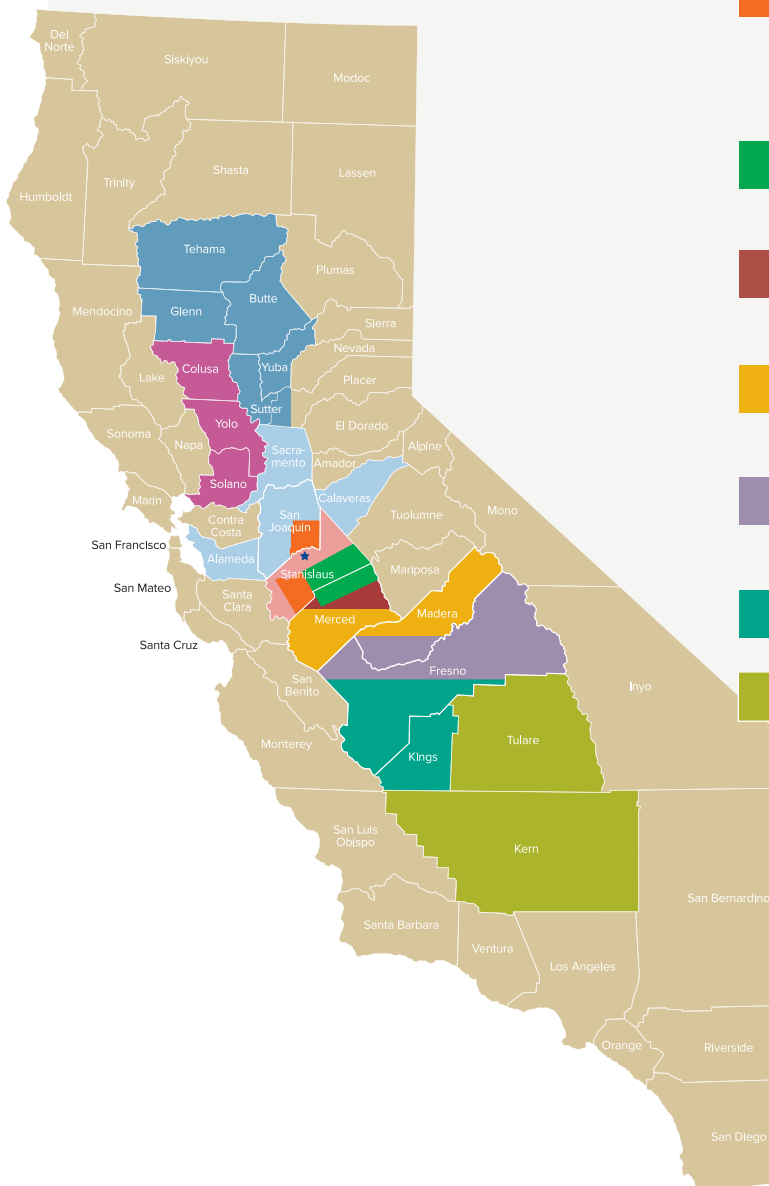
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(209) 531-6352 – Cellular

Director, Northern Region

Ben Goudie
(209) 225-0413

Director, Southern Region

Jeremy Basich
(209) 446-2107



Glenn, Butte, Tehama, Placer, Yuba & Sutter (DISTRICT 1 & 2)

Christine Ivory, (530) 518-9109

Colusa, Yolo & Solano (DISTRICT 2)

John Aja, (530) 338-6440

Sacramento (DISTRICT 2), Calaveras, Alameda & San Joaquin West of Austin Rd (DISTRICT 3)

Ben Goudie, (209) 225-0413

Stanislaus County North of Tuolumne River & West of San Joaquin River (DISTRICT 5 & 6)

Justin Elam, (209) 303-7306

San Joaquin East of Austin Rd; Stanislaus South of Tuolumne, East of San Joaquin River & West of Hwy 99; Merced North of the Merced River, West of Hwy 99 (DISTRICT 3 & 4)

KC Stone, (209) 596-5375

Stanislaus South of Tuolumne River, East of 99 & Merced North of Merced River, East of 99 (DISTRICT 6 & 7)

Brian Noeller, (209) 417-2010

Merced County, West of 99 & South of Merced River, East of 99, North of Hwy 140 (DISTRICT 7 & 8)

Trent Voss, (209) 470-5981

Merced County, South of Hwy 140 & Madera County, North of Ave 12 (DISTRICT 8)

Kenny Miyamoto, (209) 323-8454

Southern Madera County & Northern Fresno County (DISTRICT 8)

Ashley Correia, (559) 356-1584

Southern Fresno & Kings Counties (DISTRICT 8 & 9)

Meggie Gilbert, (559) 470-9731

Tulare & Kern Counties (DISTRICT 9)

Jeremy Basich, (209) 446-2107

South Valley Training & Development

Mike Griffin, (559) 779-6400

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Daniel Dekeyrel – Membership Assistant (*Delivery Tags*)
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Kristie Ezell – Grower Accounting Coordinator
(916) 446-8368

Erika Martin – Grower Accounting Assistant
(916) 446-8385

2021 Grower Liaisons

DISTRICT 1

Brian Erickson
Stacy Gore
Jerry Montz
Kevin Davies **C**
John Nock
Raymond Antonowich
Darren Rice
P. Samantha Lewis
Chris Alves **VC**
Luke Kony
Robert Thill
Dan Cummings ******
W. Howard Isom *****
Steve Carlos **!**

DISTRICT 2

Don Bransford
Ryan Finnen
Brian Cahill
Michael F. Doherty **VC**
Kelli Evans **C**
Jim Peart
Brook Bachmann
Cathy Marsh
Sid La Grande
Joe Martinez
Sarah Pippitt
John Monroe ******
Elaine Rominger *****
Gerald Rominger *****
Maryann Warmerdam **!**

DISTRICT 3

Don Van Vliet
Rick Phillips
Louie Tallerico
Michael M. Petz
Lloyd Van Dyken
Bruce Oosterkamp
Craig Miller
Ian Koetsier **VC**
Nick Alta
Chris Rishwain **C**
Jack Dalton
Dale Van Groningen ******
John Thoming ***** **ABA**
Mike Bogetti **!**

DISTRICT 4

Kevin Van Laar
Rick Morris
Paul Adrian
Will Drost
Wes Eisenga **C**
Robin Giuntoli
Joe Gasper
John Almeida **VC**
Phil Mohler
Jake Sonke
Bryan Van Groningen
Kevin Fondse ******
Kenneth Roos *****
Wayne Bruns **!**

DISTRICT 5

John De Visser
Manuel Furtado
Lucas Van Duyn **VC**
Jack Hoekstra
Sonny Johns **C**
Sid Miller
Gary Darpinian
Eric Heinrich
Naomi A. Layland
Alex Vanderstoel
Ryan Valk
Stephen Van Duyn ******
Neil Van Duyn *****
Grant Ardis **!**

DISTRICT 6

Frank Borba
Trent Voss
Michael Mora
Richard Gemperle
David M. Genzoli
Paul Lara
Darryl Starn **C**
Christine Gemperle **VC**
Don Clark
Jared Serpa
Hal Carlton
Charles Crivelli III ******
Steve Vilas *****
Bill Brush **ABA**
Paul Danborn **!**

DISTRICT 7

Galen Miyamoto **C**
Joe Sansoni
Jimmi Atwal
Jim Snyder
Victor Yamamoto
Bobby Deol
Alan Sano
Frank Fagundes **VC**
Jeffrey Baize
Tim Lohman
Rick Scoto
Dan Mendenhall ******
Robert J. Weimer *****
Louie Bandoni **!**

DISTRICT 8

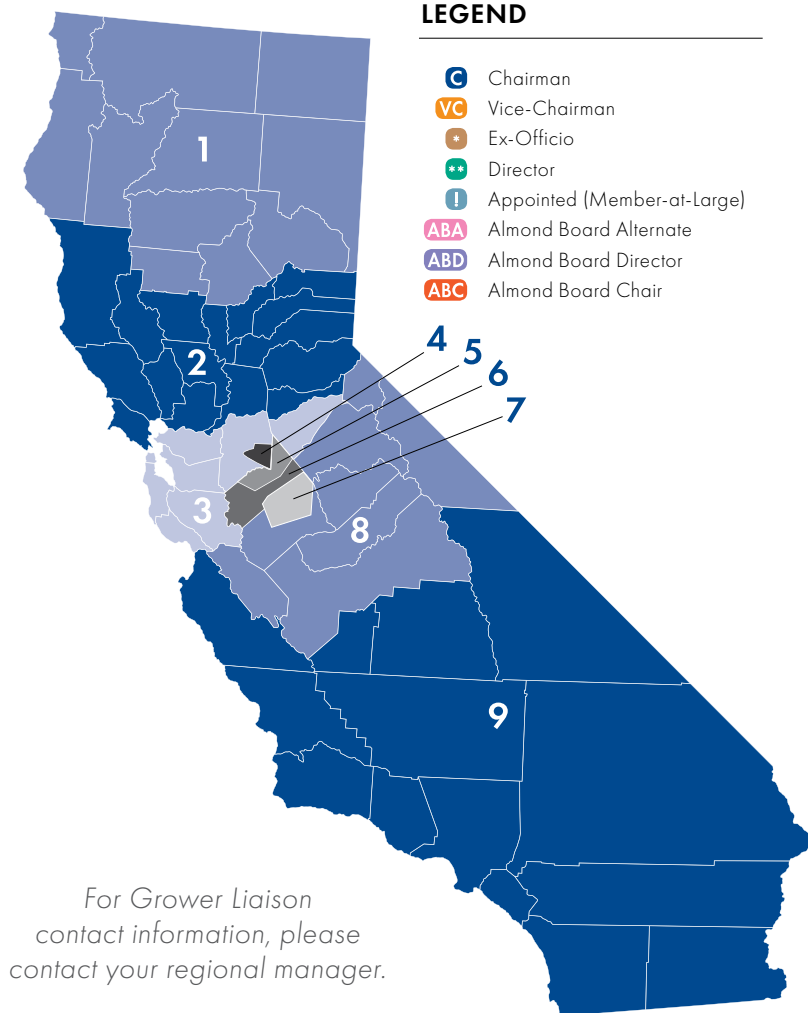
Ryan Indart
Lee Erickson **C**
Norman Pretzer
David Massaro **VC**
Jerry Rai
Anthony Basila
Dan Wattenbarger
David Tolmosoff
Robert Allen
Jens Finderup
RJ Maan
Matt Efird ******
George Goshgarian *****
Aldo Sansoni *****
Steve Bains **!**

DISTRICT 9

Gurcharon Dhillon
Kyle Balakian
Keith Gilbert
David Snell
John Allen
Don Davis **VC**
Chris Vanborg
Mark Fanucchi
Doug Kindig
Ray Van Beek **C**
Kent Stenderup ****** **ABC**
Clinton Shick *****
Karamjit Jhandi **!**

LEGEND

- C** Chairman
- VC** Vice-Chairman
- *** Ex-Officio
- **** Director
- !** Appointed (Member-at-Large)
- ABA** Almond Board Alternate
- ABD** Almond Board Director
- ABC** Almond Board Chair





Blue Diamond Member Relations Team Members at the Tree & Vine Expo. L to R: KC Stone, Trent Voss, Kabir Tumber, Kenny Miyamoto, and Justin Elam

Connecting with Growers at the Tree & Vine Expo

On November 9, Blue Diamond hosted a booth at the annual Tree & Vine Expo at the Stanislaus County Fairgrounds, in Turlock. Regional managers met with growers in the Turlock and Fresno areas to discuss Blue Diamond's Orchard Stewardship Incentive Program rebranding from the Sustainability Incentive Program, and many growers expressed their intent to participate again. They talked about new items in Blue Diamond innovation, and current market updates. Regional managers expressed their excitement in seeing growers for the first time in several months because of COVID-19. Stories of Blue Diamond generational farming were exchanged, and other attendees visited the Blue Diamond booth to rave about Blue Diamond product and its glowing reputation. ♦

All-American Foods Served on Vietnam Airlines

For the first time ever, Vietnam Airlines is offering direct flights from Vietnam to the US. To prepare their travelers for the amazing American cuisine awaiting them, the airline will serve in-flight meals and snacks that include a variety of California grown fresh produce and foods including *Blue Diamond's* single-serve *Almond Breeze*, a variety of cheeses, raisins, fresh grapes, and dried blueberries. ♦



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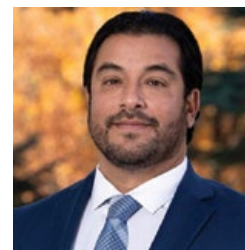
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Assemblymember Villapudua Named 2021 Almond Champion of the Year for Support of Pollinator Habitat Legislation

Assemblymember Carlos Villapudua (D-Stockton) is being honored as the Almond Alliance of California's 2021 Almond Champion of the Year for his effective leadership in authoring legislation that supports California's pollinator habitats, as well as leading efforts to educate his fellow legislators about the importance of a sustainable California almond industry to the state's economic health.



The legislature this year approved a budget containing funding that will help almond growers implement those important conservation practices that benefit honey bees as they forage for pollen and nectar in the orchard. Assemblymember Villapudua's leadership on AB 391, which highlighted the need for funds to accelerate the adoption of conservation practices designed to integrate pollinator habitat and forage on working lands, was critical in getting these funds approved.

Almond Alliance Chair Mike Curry praised Villapudua for his work on legislation of importance to the California almond industry. "Assemblymember Villapudua as a freshman legislator has really taken the time to get to know the many facets of our industry," explained Curry. "As one of the few legislators representing agriculture, he has done a great job of educating his fellow legislators about how important farming is to this state. His most recent efforts in obtaining funding for pollinator habitat conservation practices will benefit honey bees as they forage for pollen and nectar in almond orchards."

The Almond Champion of the Year Award is presented annually to those who have demonstrated extraordinary leadership in education, coalition building, partnerships and promoting legislation and policies that encourage the advancement and protection of California agriculture and the California almond industry. The award recipient is decided on by our Government Relations committee members.

Committee members include:

- | | |
|---|--|
| • Micah Zeff <i>Montpelier Orchards</i> | • Dave Phippen <i>Travaille & Phippen</i> |
| • Mike Curry <i>Johnson Farms</i> | • Melissa Frank <i>The Wonderful Company</i> |
| • Dick Cunningham <i>Cunningham Ranch Inc.</i> | • Steve Van Duyn <i>Van Duyn Family Farms</i> |
| • Jeannine Grech <i>Campos Brothers Farms</i> | • Todd Meyer <i>Bear Republic Nut</i> |
| • Alicia Rockwell <i>Blue Diamond Growers</i> | • Bill Lyons <i>Mapes Ranch</i> |

Past recipients of this award include:

- Assemblymember Adam Gray
- Assemblymember Heath Flora
- Connie Conway, former Director of Farm Service Agency

“As one of the few legislators representing agriculture, he has done a great job of educating his fellow legislators about how important farming is to this state. His most recent efforts in obtaining funding for pollinator habitat conservation practices will benefit honey bees as they forage for pollen and nectar in almond orchards.”

— Almond Alliance Chair Mike Curry

The award was presented by the Almond Alliance at the California Almond Industry Political Action Committee's Annual Modesto Fundraiser at Del Rio Country Club on October 27, 2021.

About the Almond Alliance

The Almond Alliance of California (AAC) is a trusted non-profit organization dedicated to advocating on behalf of the California almond community. California almonds generate more than \$21 billion in economic revenue and directly contribute more than \$11 billion to the state's total economy. California's top agricultural export, almonds create approximately 104,000 jobs statewide, over 97,000 in the Central Valley, which suffers from chronic unemployment. The AAC is dedicated to educating state legislators, policy makers and regulatory officials about the California almond community. As a membership-based organization, our members include almond processors, hullers/shellers, growers and allied businesses. Through workshops, newsletters, conferences, social media and personal meetings, AAC works to raise awareness, knowledge and provide a better understanding about the scope, size, value and sustainability of the California almond community.

For more information on the Almond Alliance, visit almondalliance.org or check out the Almond Alliance on Facebook, Twitter and Instagram. ♦

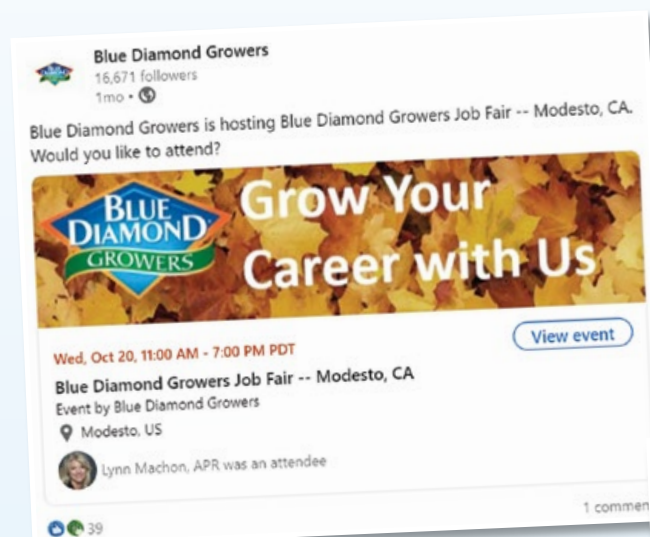


Assemblymember Villapudua (center) pictured with Blue Diamond VP of Member Relations Mel Machado (left) and Blue Diamond Director of Member Relations - North, Ben Goudie (right).

#WeAreBlueDiamond Social Media Activity



Blue Diamond had a lot going on this month! We celebrated Veterans Day by honoring Blue Diamond team members who have served or continue to serve in the military. We enjoyed our 111th Annual Meeting and sent all growers a box of Blue Diamond goodies. We hosted a successful job fair, attracting new talent, and we celebrated National Nut Day by offering a discount for a day in our Nut & Gift Shops. ♦




BLUE DIAMOND INVESTMENT PROGRAMS

Current Investment Rates available as of August 8, 2021

Blue Diamond Growers offers members short-term and long-term investment programs.

The objective of these programs is to serve as a competitive investment alternative for our members and provide *Blue Diamond Growers* with a steady source of funds. The interest rates effective August 8, 2021, for the program are listed here:

|  | Short-Term Investment Certificate (STIC) | Long-Term Investment Certificate (LTIC) (Maturity Date of 6/30/2024) |
|---|--|---|
| Initial Investment Required | \$1,000 | \$50,000 |
| Interest Rate | 1.00% | 1.875% |
| | (Variable, subject to change) | (Fixed rate) |

For more information, contact your local Regional Manager, or Member Services at (209) 545-6225.

This summary does not constitute an offer to sell or a solicitation to purchase investment certificates. We will provide a package of documents for the programs to those members who are California residents and who express an interest in participating in the program.



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Chocolate Peppermint Crinkles

Prep Time: 15 minutes Cook Time: 15 minutes Difficulty: Easy Serves Up To: 48

Ingredients

- 8 ounces bittersweet chocolate
- 1¼ all purpose flour
- ½ cup cocoa powder
- 2 teaspoons baking powder
- ¼ teaspoon salt
- 1 stick butter
- 1½ cups packed light brown sugar
- 2 large eggs
- 1 teaspoon pure vanilla extract
- 1 teaspoon peppermint extract
- ⅓ cup *Almond Breeze*® Chocolate Almondmilk
- 1 cup granulated sugar
- 1 cup powdered sugar



Directions

1. Microwave chocolate in 30 second increments until melted and smooth. Let cool slightly.
2. Combine all dry ingredients in a bowl. Beat butter and sugar together then mix in eggs, vanilla, peppermint and melted chocolate.
3. Add dry ingredients in two batches, adding the *Almond Breeze*® Chocolate Almondmilk in between additions.
4. Refrigerate dough for 2 hours. Then make 2 inch balls of dough, roll them in granulated sugar then powdered sugar.
5. Bake in an oven preheated to 350°F for 7 minutes, then rotate the baking sheet and cook for another 7 minutes. Let cool completely on wire racks and then enjoy!

Bittersweet Chocolate Chunk Cranberry Cookies

Prep Time: 35 minutes Cook Time: 35 minutes Difficulty: Easy Serves Up To: 15

Ingredients

- ¼ cup packed light brown sugar
- 2 tablespoons butter, softened
- 1 egg
- 1 teaspoon vanilla extract
- 2 cups *Blue Diamond* Almond Flour
- ½ teaspoon baking soda
- ¼ teaspoon salt
- ½ cup bittersweet chocolate chunks
- ¼ cup dried, sweetened cranberries
- Coarse sea or kosher salt, if desired

Directions

1. Preheat oven to 350°F.
2. Line a baking sheet with parchment.
3. Beat the sugar and butter with an electric mixer until combined. Add egg and vanilla; beat on high until smooth and pale tan in color. Add flour, soda and salt; stir until a dough forms. Stir in chocolate and cranberries.
4. Drop by heaping tablespoonful's onto prepared baking sheet, about 1" apart. Flatten cookies to about 2½" in diameter. Sprinkle with salt, if desired.
5. Bake for 10 minutes or until golden brown. Transfer to a rack to cool. Repeat with remaining dough.



“Can A Week” Campaign Turns 35!

To celebrate the 35th anniversary of the iconic “Can a Week” ad campaign series, which was launched in 1986, we’ve connected with some of the growers who participated 35 years ago! We asked them about their experience, and they shared fond memories along with photographs from the production.

Dan Cummings, the Chairman of the *Blue Diamond* Board, shared his memories of the campaign. His family has been *Blue Diamond* members since 1928, starting with his grandfather. In the ad, Cummings wore a white tuxedo to marry Steve VanDuynt’s cousin, Jeannie Betschart DeSimone. He had fun participating with other growers and the marketing team at that time including Al Greenlee and Chris McGlasson.

The Montgomery family has been farming since 1910. Mark Montgomery is unsure when his grandfather became a member of *Blue Diamond*, but he believes it to be over 100 years ago. They have been members his entire life of 71 years and for all his father’s life.

Mark, Kathi, and their son Fred were excited at the opportunity to audition for the campaign and even more thrilled when they were selected. Kathi enjoyed the whole process and believes that consumers could relate to the campaign since real almond growers were advertising their own product. She remembers the director agreeing, saying that the growers were just what they were looking for with this campaign since they were real farmers, not actors. Kathi understands that younger generations enjoy the homespun feel of raw videos, like what’s on TikTok, and she would like to see the “Can a Week” campaign reinvented, even encouraging Fred and his two children to participate.



“It will be interesting to see how the next generation of young farmers faces the challenge of producing a sustainable, nutritious, delicious and economical almond crop to our world that is making so many demands on the few who choose to grow the food that sustains us and all of the industries that are part of agriculture. A challenge indeed! God bless the farmers!”

Fred reflects, “I was only about 9 or 10 years old when we filmed the commercials for *Blue Diamond*. I remember it being kind of an exciting thing at that age, especially knowing that I was going to be on TV! The filming process was fun, and the directors had to do lots of takes to get the footage that they wanted. They seemed pretty patient with all of us farmers, considering we had no formal acting training!”

Pete and Vicki Bandoni were also featured in the campaign. Pete and his father planted their first family almond orchard when he was 9-years-old. Unfortunately, Pete has passed away since then. Vicki was flattered to be chosen and had never experienced anything like it before. She became instantly recognizable and called it her, “Five minutes of fame.” She added, “For years people who had seen me in a magazine or a billboard would always mention it. I got calls from old friends across the country. I often thought of all the things I have done in my life which I thought were more important and no one noticed, but people remember the *Blue Diamond* advertisement.”

The increase in almond acreage has transformed the industry, but also, technology has evolved. When asked how the industry has changed, Cummings noted the vast innovations beyond the snack nut category such as crackers, flour, and oil, the success of *Almond Breeze*, and the major improvements throughout *Blue Diamond*, including the storage capacity at the Salida site. Fred Montgomery believes the biggest change in the industry has been the drastic volume increase of almonds produced. He stated, “The statewide crop back then was probably

only a few hundred million pounds, and now we are producing around three billion!” Technology has also driven the industry forward, “at lightning speed,” according to Vicki Bandoni. She also added, “It will be interesting to see how the next generation of young farmers faces the challenge of producing a sustainable, nutritious, delicious and economical almond crop to our world that is making so many demands on the few who choose to grow the food that sustains us and all of the industries that are part of agriculture. A challenge indeed! God bless the farmers!”

Several other Northern growers participated in “Can a Week,” but several have passed away or have retired. Bob Overton participated and has since passed away, but his son Greg Overton continues to farm as a *Blue Diamond* grower. Chet Rice participated and passed away, but his sons, Darren and Kevin continue to farm as *Blue Diamond* growers. Stanford McLaughlin participated but has since passed away. Sandy Morimoto was a participant; her parents and uncle were *Blue Diamond* growers but have since passed. Sandy is a teacher today. The Mead family still belongs to *Blue Diamond*.

Today, the ads can be found online; just type “A can a week, that’s all we ask” into your search browser. The simple phrase is still widely remembered today with its rustic, folksy, and fun concept. We enjoyed speaking with our *Blue Diamond* Grower “Can a Week” celebrities about their experiences and we are very proud that many of them are still part of the *Blue Diamond* family. ♦

Blue Diamond Team Members and Growers Show Support for Blue Star Moms

Team members and growers rallied together to collect and donate 473 pairs of socks for people serving in the military. The Sacramento Blue Star Moms posted a thank you and photos on social media, sharing their gratitude and appreciation for the generosity of the people of Blue Diamond. ♦



“Thank you to the Blue Diamond team members and growers that celebrated Veterans Day by donating over 400 pairs of socks to the SBSM packing event this past Saturday. The SBSM could not do what we do without the support of your great business and the community. Thank you!”

— Sacramento Blue Star Moms

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- Must currently live in Almond Growing Regions of California
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- Application deadline: **March 31, 2022**

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California Must Confront Supply Chain Crisis with Bold Action

California agriculture is part of a complex global system facing supply chain upheaval resulting from a failure to invest in upgrading ports, overly ambitious regulatory goals slowing goods movement, a lack of equipment, and other issues creating a system fraught with pitfalls.



Photo credit: Paul Teysen from Unsplash

Given the crisis has been years in the making, there is no easy answer, but it is clear all levels of government have fallen short in failing to recognize issues sooner and for not identifying certain governmental actions as part of the problem. Our state must take bold action to address our supply chain needs and time is of the essence.

California Ports

California agricultural exports are a major part of the engine fueling our economy, accounting for \$21.7 billion in value in 2019, according to the California Department of Food and Agriculture (CDFA). California almonds are

the state's highest valued export commodity with a value of more than \$4.9 billion in foreign sales in 2019, according to CDFA.

Much of the media coverage regarding California's ports focuses on imports and the resulting impacts on retailers and consumers as our nation heads into the holiday season.

However, as almond growers know well, California agriculture depends upon a reliable supply chain, and at the ports, agriculture requires the use of container units leaving the ports to export products.

Across California's three major ports, comparing first quarter of 2020 to first quarter of 2021, there is an 80 percent increase in empty export containers departing the ports, which would typically serve as the containers for agricultural exports.

At the Port of Los Angeles, nearly 75 percent of all exported containers left the port empty from January through July of 2021. Some ships are avoiding the Port of Oakland altogether — where many agricultural products move out of — to return to Asia more quickly and bring back more imports.

In addition, access to export containers is even more limited given that costs are skyrocketing due to additional surcharges and fees.

Given that agricultural exports are a critical driver of California's economy, Ag Council is working with Governor Gavin Newsom's administration and legislators to raise issues relating to goods movement, including obstacles facing exports, and our team is participating in conversations to develop solutions.

Letter to Gov. Newsom Requesting Urgent Action

Ag Council is part of a goods movement coalition with other associations and recently worked with partners in agriculture and business to send a letter to Governor Newsom asking him to declare a State of Emergency at the ports to facilitate supply chain movement and resolve bottlenecks.

The letter garnered the attention of the Wall Street Journal in an article published on November 4 focusing on California's barriers to goods movement, including trucking and warehouse regulations, which are leading to a more severe crisis in the state.

The letter also asked Governor Newsom to review regulations hampering the movement of goods, including considering expediting CEQA permits and other permits for warehouses, rail lines and goods movement components, as well as looking at the potential suspension of rules preventing the unloading of goods at warehouses during

certain times of day. Even temporarily, such steps would help bring at least some relief amid extreme supply chain congestion.

Select Committee on Ports & Goods Movement Hearing

Prior to a legislative hearing on November 3, Ag Council worked with legislators to communicate the severity of the impacts on agriculture, including the fact that lost agricultural export costs are nearing \$1.5 billion. Special thanks to Assemblywoman Aguiar-Curry (D-Winters) for assertively raising issues of concern to agriculture during the hearing.

Short-Term Actions

The hearing revealed a few short-term actions that would help alleviate port backlogs, including a huge need for chassis, sweeper ships, and warehouse space.

Chassis

California must work to free up more chassis, which are the wheels underneath containers, to assist in moving goods quicker. Due to a lack of warehouse space and vacant lots near the Southern California ports, some truck drivers are leaving containers with the chassis outside of storage areas to retrieve later. Additionally, major retailers are paying a premium for chassis at the ports. This is contributing to the shortage of chassis and adding to gridlock.

Sweeper Ships

Sweeper ships remove empty containers from the docks and create more room to move containers from ships and into warehouses. These ships are desperately needed, and we understand there is an effort to work with trade partners to send sweeper ships to California.

Warehouses

We must find more areas for warehouses to store containers near the ports and elsewhere in California. We have a tremendous number of containers and not enough places to store them. Our letter to Governor Newsom requests a review of the laws and regulations hindering the use and development of such facilities.

Long-Term Actions

Funding

California is lagging far behind other states when it comes to making investments in its ports. According to the California Association of Port Authorities President Daniel Wan, there is a nearly 11 to 1 imbalance in investments made by other states in their ports versus the investments made by California in areas such as infrastructure, marketing, and coordination at the ports.

This is not acceptable. The recently approved federal infrastructure measure contains \$17 billion for ports nationwide, which is a start. However, the state must also make funding a priority now. Ag Council understands Governor Newsom's upcoming January budget proposal will likely contain funds for port upgrades.

Trucking

Trucking is a major aspect of goods movement and is also connected to the congestion at the ports and posing a significant challenge to the movement of agricultural products.

Nationwide, the U.S. is experiencing a shortage of 80,000 truckers and California is embarking on an environmental transformation in the trucking industry, which will further constrain the number of trucks commercially available on the market.

Along with temporarily securing increased weight limits on trucks moving perishable products, Ag Council has worked with CDFA and the Labor and Workforce Development Agency to take a deeper look at the movement of agricultural products. The goal is to find policy options to increase the number of drivers and determine a path forward on environmental regulations to meet air quality regulations while smoothly moving our products in the future.

Conclusion

California prides itself on being at the forefront of many policy issues and its participation in the supply chain should be at the cutting edge of technology and its investments should be the envy of the world.

We need more accountability and strong leadership to help coordinate with all levels of government and the private sector going forward. Ag Council stands ready to work with officials as we take steps to overcome obstacles and develop a more resilient supply chain now and in the future.

If you have feedback regarding the supply chain crisis, please email me at: emily@agcouncil.org. ♦



Emily Rooney,
Ag Council President

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Dr. Jhalendra Rijal, UCCE Area IPM Advisor for San Joaquin, Stanislaus and Merced counties led a session where he discussed the increasing problem of brown spots on almonds due to insect damage and a the best ways to approach the issue.

What Causes Brown Spots on Almonds?

Farm advisor offers causes and cures

With brown spot defects on almonds approaching the frequency of Navel Orange Worm damage in recent years, growers have begun looking for answers to the cause and cure. Those questions were addressed at *Blue Diamond Growers'* virtual annual growers meeting November 17. Dr. Jhalendra Rijal, UCCE Area IPM Advisor for San Joaquin, Stanislaus and Merced counties, pointed his finger at several species of Hemiptera "True Bugs" as the primary culprits who attack immature almonds early and mid-season, leaving them gummy, stained with brown spots or lying on the ground from nut drop.



Leaffooted Bugs and several varieties of Native Stink Bugs do most of the damage, Dr. Rijal noted. However, a new, invasive stink bug has found its way into the Central Valley — the Brown Marmorated Stink Bug (BMSB) which feeds on almonds throughout the season.

But not all brown spots in almonds are created by bugs, he said. Mold, fungus, high moisture, and pathogens transmitted by large insects can also be a factor.

Bug Control

Prevention and control of Leaffooted Bugs and Native Stink Bugs involve early detection through visual inspection of the tree canopy looking for bugs and egg masses and applying insecticides before the bugs begin feeding on the new crop. When visually checking for True Bugs, Dr. Rijal recommends concentrating on the middle and upper canopy early in the season before the bugs damage the fruit. He says there is no economic threshold to begin control. There are not enough



predators to count on for control. Only a few insecticides are available for these pests and these materials are most useful early in the season.

- Bifenthrin (Brigade WSB)
- Lambda-Cyhalothrin (Warrior II with Zeon)
- Clothianidin (Belay)
- Esfenvalerate (Asana XL)

Pest Behavior

Most feeding damage from True Bugs occurs before shell hardening — early through mid-May. The bugs are equipped with sharp, needle-like feeding "stylets" that they insert through the hull as far as the kernel, release one or more enzymes that liquefy the nut material, and suck up the juice. The brown spots occur as a result of the plant fighting back by deadening the flesh around the wound to prevent the bug from causing any more damage.

The size and number of resulting brown spots depends on the number of bugs feeding on the crop, the size of the bugs, their feeding mechanism, and the age of the crop. Early season nuts are more vulnerable to bug damage. A bug attack at that time can cause complete collapse of the kernel or can trigger hormonal changes in the tree that result in significant nut drop. Mid-season and later feeding produce significant gumming, brown spots, and dimpling. Late season attacks produce shallow spots.

BMSB:

The invasive Brown Marmorated Stink Bug arrived in Southern California in 2002, the San Joaquin Valley in 2015, and registered its first almond crop damage in 2016 in the Northern San Joaquin Valley. It continues to spread in the valley causing extensive damage. It is distinguished from Native Stink Bugs by white bands around its antennae and legs. Symptoms of its presence in an almond crop include gummosis,

yellowish nuts and brownish speckles on kernels, also shriveled and dried nuts. Most of the damage occurs along the edges of an orchard. BMSB causes kernel damage all season but lessens

later in the season. Commercial traps are available for BMSB. The pest can be detected in traps in mid-March. The same control measures that are effective for Native Stink Bug help control BMSB. ♦



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Government Affairs session panelists included Administrator Daniel Whitley, Foreign Agricultural Service (FAS), USDA, Administrator Bruce Summers, Agricultural Marketing Service (AMS), USDA, and Lynn Jacquez, Principal and Of Counsel, JPH Law Firm. The panel gave expert advice on climate change initiatives, investment programs that assist businesses, and how to find support amid the pandemic.

How Emerging Climate Policy Could Impact California Almond Industry

With increasing demands from legislators, media and climate activists for individuals, business and agriculture to reduce their carbon footprints, state and federal policymakers continue to enact ever more restrictive policies affecting agriculture. The effect those policies could have on the California almond industry was the topic of a panel consisting of two USDA administrators and *Blue Diamond's* legislative and regulatory representative in Washington, D.C.



Administrator Daniel Whitley, FAS, USDA

Administrator Daniel Whitley, FAS within USDA, reported, after attending the United Nation's Climate Change Conference (COP26) in Glasgow, Scotland, in October and November 2021, that "the stars have aligned around the world" on the issue of climate change and that

the world is coming together to address it in a meaningful way. "It is clear that there is a lot of momentum to address climate change and that agriculture will lead the way," he reported.

Administrator Whitley noted that the COP26 participants do not agree on every aspect of how to address the perceived threat of climate change nor do they agree on the science around the issue, but he feels that the large US delegation was successful in getting the US government's

point of view across and that several partnerships on the issue were formed.

An Aim for Climate initiative emerged to "take advantage of the political will to accelerate investment in climate change practices, sustainability practices, and reduction of greenhouse gases and emissions for decades to come," he said. Administrator Whitley acknowledged that farmers and ranchers across the country and in California, particularly, are leading the way in adopting sustainability practices. He also stated that the USDA believes American agriculture should be equipped with the innovation, tools, and technology available to help achieve such goals as President Biden's "Net Zero (carbon) by 2050."

Other countries and advocacy groups are pushing to limit tools and resources for agriculture. "At FAS, we think science supports various approaches to achieving sustainability goals," Administrator Whitley countered. The agency is aggressively promoting the work that American farmers are doing towards sustainable food production as an example for other countries to learn from, he explained, and FAS remains alert to any effort by other countries "to erect trade barriers disguised as good climate change politics."

Addressing long term implications of emerging climate policy and trends, Administrator Whitley predicted, "We think a market-based incentive will emerge. Consumers will want foods verified to have been produced sustainably. There will be demand for it."

In his 30 years in the industry, Administrator Bruce Summers, AMS within USDA, said this is the busiest USDA has ever been with the amount of work underway to address the pandemic as well

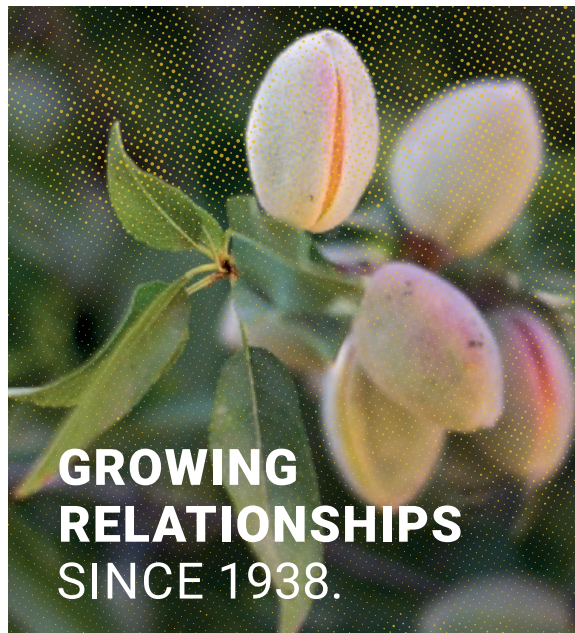


Administrator Bruce Summers,
AMS, USDA

as climate change. This year, AMS purchased more than \$6 billion in food for various USDA feeding programs, doubled the specialty crop grant program, and created a new \$650 million grant program, the Pandemic Response and Safety Grant program, designed to help small business in a variety of commodity areas with pandemic related costs.

On the topic of climate change, Administrator Summers shared that USDA Secretary Vilsack has called for a whole government approach to achieve net zero greenhouse gas emissions economy-wide by 2050, with a keen eye on President Biden's initial goal of reducing greenhouse gas emissions economy-wide by 50% by 2030. Understanding that agriculture will play an important role in meeting these goals, USDA has outlined a new climate partnership initiative designed to create new revenue streams for producers via market opportunities for commodities using climate-smart practices. Through this initiative USDA will support a set of pilot projects that provide incentives to implement climate-smart conservation practices on working lands and monitor the carbon and greenhouse gas benefit associated with those practices.

In addition to this new program, there are several major investment programs currently underway at USDA focusing on climate solutions. Since January, USDA has taken steps to provide higher payment rates, new incentives, and a more targeted focus on climate mitigation through the Farm Service Agency's conservation reserve program. USDA announced the Pandemic Cover Crop Program to provide support for producers who ensure their spring crops with insurance policies and planted a qualifying cover crop. USDA invested \$330 million in 85 public and private partnerships to mitigate climate damage and address other natural resource challenges through Regional Conservation Partnership Program. There's another \$75 million for 15 projects through this program. Also, in addition another \$10 million is set



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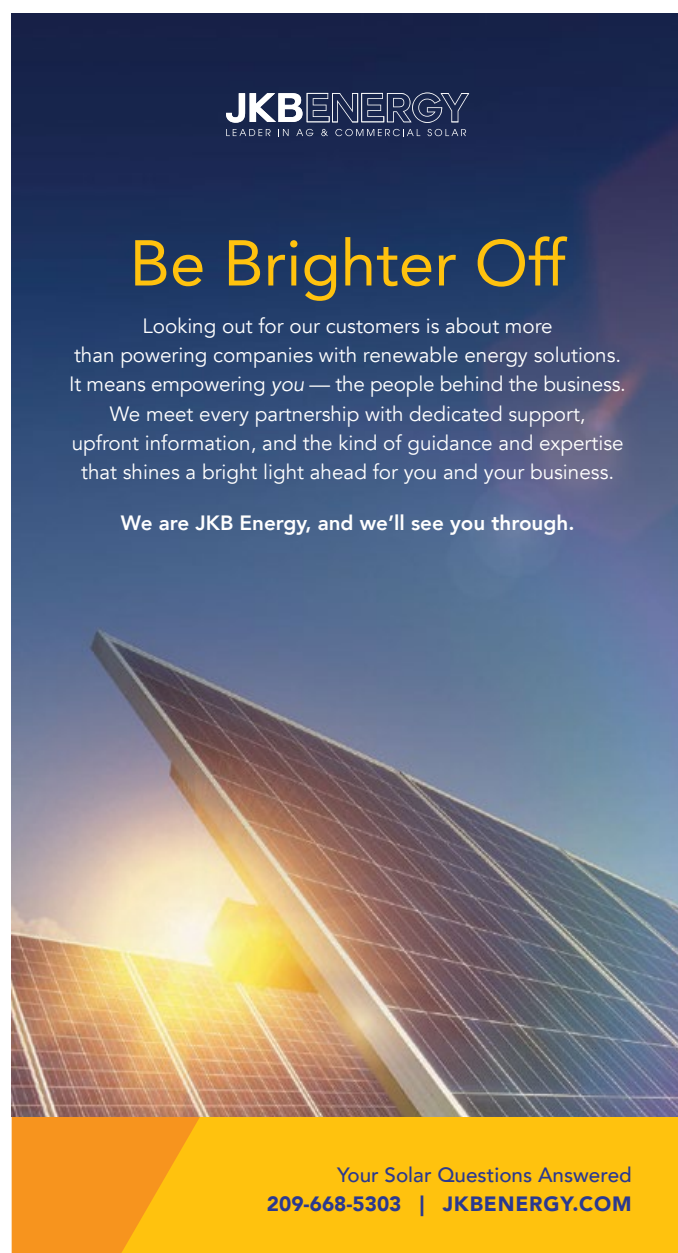
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aside for environmental quality and semiconductors support climate smart agriculture through voluntary conservation practices targeting 10 states.

AMS oversees over 50 boards and committees that collect assessments, like the Almond Board of California, that are covered by these programs. Summers noted the great work these boards are doing, in partnership with AMS, to achieve climate health goals, and commended the Almond Board specifically.

"The Almond Board is actively engaged with these (aforementioned) programs through research initiatives. The Almond Board of California is heavily invested in finding soil erosion solutions, greenhouse gas emission reduction studies,

discovering renewable uses for almond biomass, adapting farm practices to support wetland ecosystems and wildlife habitats," Summers stated. This is an example of how AMS partners with numerous boards to achieve climate health goals.



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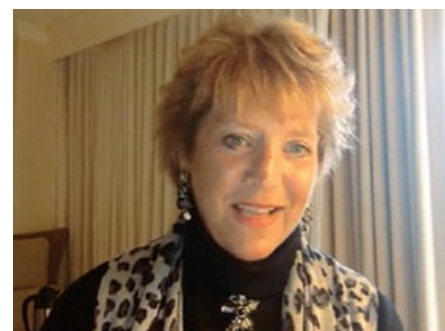
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Lynn Jacquez, Principal and Of Counsel, JPH Law Firm, highlighted the increasing attention given to climate change by industry as seen in their advertising and corporate initiatives. Congress is matching this activity with legislative proposals and hearings on a wide spectrum of topics relating to climate change.



Lynn Jacquez, Principal and Of Counsel, JPH Law Firm

According to Jacquez, at the federal level, policy can be separated into three buckets: relief/recovery, resiliency/adaptation, and sustainability.

Relief/recovery policy helps producers recover from production, financial, or physical loss due to natural disasters. Policy and programs could include crop insurance, direct payments, low interest loans and cost shares. USDA administers those programs, Jacquez said, but increasingly is encouraging FEMA to take a larger role on matters more in line with their mission. Jacquez noted that discussions are underway regarding government response to what may now be perceived, amid the climate change debate, as man-made versus natural disasters.

"Resiliency/adaptation is what farmers are leading experts in doing," Jacquez said. This category includes policies created in response to external activity that affects growers. She said wildfires are a current focus in this subject area. Since 2015, the US has recorded 100 more large fires each year than the year before, which draws climate change into the discussion.

"In the last three years there has been a significant policy shift towards wildfire prevention," she explained. "The recently signed infrastructure bill contains \$3.4 billion for prevention."

Long term drought in the West and resulting water shortages were also addressed in the infrastructure bill, including \$300 million for incentives to limit water use by farmers and an additional \$50 billion for water storage and capture. USDA is funding the development of alternative production practices through research and technical assistance leading to best practices under climate change.

The last bucket, sustainability policy, requires the reduction of growers' carbon footprint through incentives to change behavior and through mandates regulating business practices. The federal government is zeroing in on improving harvest techniques, orchard recycling, waste reduction and utilization, genetic development, zero emission agricultural equipment and zero emission farm-to-market transportation. Investments in technology, drip irrigation and greenhouse farming are also in the works, Jacquez said.

As the new year approaches, the 2023 Farm Bill will soon be a major topic in Washington and for *Blue Diamond* and the almond industry, Jaquez noted. Climate change will most certainly be interwoven throughout, and it will be crucial *Blue Diamond* and the almond industry continues to be engaged and part of the conversation. ♦

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SUSTAINABLY SPEAKING, WITH DR. DAN

Blue Diamond’s own Director of Sustainability, Dr. Dan Sonke led a grower session that covered an in-depth update on Blue Diamond’s Orchard Stewardship Program and how it relates to CASP.




Why is Sustainability Good for Blue Diamond — And You?

Since my last Almond Facts article, I’ve been diving headfirst into the sustainability incentive program for grower members. August marked the end of the first crop year of the program. The results exceeded expectations. You might be interested in some of the results and how they are useful to your cooperative.

Before I share the results for the 2020 crop year, let me explain some things about the program that will appear different for the 2021 crop year.

First, there is no significant change to the program this year. The requirements and benefits of the incentive program are not changing for any of the tiers of the incentive program. For each tier of rewards, the same modules of the Almond Board of California’s California Almond Sustainability Program (CASP) are involved. For the top tier, the additional requirements of Bee Friendly Farming certification and use of the Cool Farm Tool are also unchanged.

What is changing is the name of the incentive. Going forward, the program will be known as the *Blue Diamond* Orchard Stewardship Program. As someone who grew up on an almond

| Orchard Stewardship Incentive Level Requirements and Rewards | | |
|---|--|--|
|  |  |  |
| <p>CASP modules required:</p> <p>1. Pest Management</p> <p>2. Workplace + Community</p> <p>3. Nutrient + Soil Management</p> <p>4. Financial Management</p> <p>Reward: \$500 per harvest year</p> | <p>All modules in One Diamond, plus:</p> <p>5. Irrigation Management</p> <p>6. Ecosystem Management</p> <p>Reward: \$750 plus \$.005/pound</p> | <p>All modules in previous levels, plus:</p> <p>7. Bee Health + Pollination</p> <p>8. Air Quality</p> <p>9. Energy Efficiency</p> <p>– Bee Friendly Certification</p> <p>– Cool Farm Tool Assessment</p> <p>Reward: \$1,000 plus \$.01/pound</p> |
| <p>*Verification required: At least 75% of the contract’s acreage must qualify for the highest rank in order to be paid out at that level.</p> | | |

farm, I have always felt that what the world calls “sustainable agriculture” is rooted in the practical, daily care that farmers invest in stewarding their orchard for the future — the future of their families and their communities. The activities promoted as sustainable should result, in the long term, in

orchards that are more efficient, financially profitable, better for regional air and water resources, and with soil which will remain healthy and viable for generations to come. This is reflected in the name “Orchard Stewardship Program.”

The other change we've made is to the reward tier names. Previously, the three levels were named Bronze, Silver and Gold. Going forward, the Orchard Stewardship Program tiers are:

- Single Diamond
- Double Diamond
- Triple Diamond

This was done to avoid confusion with another program at the Almond Board which uses Bronze, Silver, and Gold levels.

Now for the results. Approximately 13% of our grower base participated in the CASP assessment, representing approximately 30% of cooperative member acreage and production volume. That means that our stewardship program growers produced more nuts in 2020 than our next largest competitor handled in total!

Within the participants, almost no one stopped at our Single Diamond (previously Bronze) level. Approximately two thirds reached the Double Diamond (Silver) level and one third Triple Diamond (Gold).

As you can see in the graphic with this column, to reach our top tier, growers had to not only complete all nine modules of the Almond Board of California's California Almond Sustainability Program (CASP), but also the Bee Friendly Farming Certification. For 2020, approximately 7.5% of member acres were certified under Bee Friendly Farming.

You may be wondering what this all means for you as a member, especially

if you have not yet participated and received the financial payment.

In my first six months at *Blue Diamond*, I've spent much of my time responding to customer requests for sustainability information. In several cases, I've been invited to speak to customer representatives about the program and answer their questions regarding how we are addressing climate change, drought issues, pesticide impacts, pollinator protections, and much more. The incentive has now given us strong answers to these questions in ways not possible before.

For example, in the past when a company asks how we are protecting bees and other pollinators, we might have said something like "we strongly encourage our growers to follow Honeybee Best Management Practices." While a true statement, it is more powerful to report that a significant portion of our growers are Bee Friendly Farming Certified and have planted at least an equivalency of 3% of their orchard in pollinator forage crops, and provided water for bee health, while also practicing advanced Integrated Pest Management.

We now also have a dataset which represents how our members are assessing themselves in the CASP program. No individual farm data is shared with the cooperative, to be clear. We only have the cumulative rolled up and anonymized. However, these cumulative data allow us to tell a positive story about our members.

For example, when asked about water

use in almonds, we now can say that more than 85% of member acreage in the assessment uses efficient micro-irrigation tools. And, when asked about groundwater use in almonds, we can say that about 70% of our orchards in the assessment have access to surface water and are not wholly reliant on groundwater resources. And about 25% of orchards plant cover crops for soil quality and pollinator benefits.

The data shows *Blue Diamond* members to be proactive, thoughtful farmers who are stewarding their orchards well. While our cooperative has always believed that to be true, now we have numbers to back us up. When we shared some of this recently with the sustainability team from a large, well-known breakfast brand customer, they used "best in class" to describe our program.

We want to keep customers returning to *Blue Diamond* and enabling high returns to you as a member. Hopefully the financial reward you get as a participating member is also an incentive. By the time you read this, your Regional Managers will be able to give you details about how to participate in the current crop year. Please participate and strengthen our story. ♦



Dr. Dan Sonke,
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THE BEE BOX

Spending More Time Indoors is What's in Store for US Honey Bee Colonies

In the dim, red glow of the immense warehouse's lights, tall stacks of wooden boxes are lined up in seemingly endless rows, where they will stand for the next couple of months until spring returns to California. But this is not just a warehouse full of surplus beekeeping equipment — it is an indoor storage facility — and the boxes aren't empty, but filled with live, honey bee colonies, waiting out the winter weather in this chilly, climate-controlled facility.

Storing bees indoors over the winter months is not new in North America; for many years, some beekeepers in Canada and the northern US have kept colonies inside over the winter to reduce their prolonged exposure to harsh conditions in a wide variety of structures, from cellars, to converted potato and onion sheds, to buildings designed and built specifically for honey bee storage, equipped with the latest climate control and air exchange systems to maintain optimal temperature, humidity, carbon dioxide concentrations and air exchange conditions. Over the last several years, indoor storage has been rapidly gaining greater popularity among US commercial beekeepers and an increasing number of colonies are spending time indoors. This recent increase in interest to temporarily house honey bees indoors is born not only out of the desire to reduce winter losses by providing protection from winter conditions, but also because of additional benefits to honey bee health and the bottom line that the timely use of indoor storage may offer some commercial beekeeping operations.



Figure 1: Tall stacks of honey bee colonies wintering in an indoor storage facility. Photo credit: Kelly Kulhanek

To avoid harsh winter conditions, US commercial beekeepers often move colonies to holding yards in California or other states where the weather is much milder. However, colonies wintering in warmer environments will continue to remain active, rearing brood, and consuming greater resources than they would at cooler temperatures. This results in costs incurred for the labor, travel and supplies needed to feed and manage these colonies during this period that

would otherwise be unnecessary when wintering colonies indoors.

Holding yards can also have extremely high colony densities, with hundreds of colonies (or more), often from multiple beekeeping operations, kept in close contact until they can be moved into almond orchards. This can result in a greater amount of accidental bee drift between colonies, which increases the transmission risk of harmful pests and diseases, compared to indoor storage facilities that are kept sufficiently cool and dark so that the bees remain within their hives and do not fly.

It is possible to successfully overwinter strong, healthy colonies outside in cold climates, provided they have been adequately insulated and provisioned, therefore avoiding the problems associated with moving colonies to warmer temperatures. But because they are subjected to external environmental conditions, bees will still break cluster and fly on nice days if it is warm enough. This can reduce colony size over time since a portion of the bees who



Figure 2: Bee Informed Partnership Tech Transfer Team Field Specialist Matt Hoepfinger monitoring honey bee colonies in a California holding yard. Holding yards often have high colony densities, increasing the amount of bee drift and increasing disease transmission risk. Photo Credit: Jeri Parrent

leave the colonies will not return and will not be replaced until the queen begins laying again the following spring. This leaves fewer bees inside the hive to help regulate internal colony conditions. Since bees will also consume greater resources when the weather warms, periodic temperature spikes can increase the risk of starvation for colonies wintered outdoors if colonies do not have sufficient reserves.

Colonies kept in the cool, dark environment of indoor storage facilities will stop producing brood until returned to warmer, brighter conditions. This creates the opportunity for beekeepers to perform any management actions that are best accomplished under broodless conditions just as colonies are brought out of storage. This includes treating for *Varroa*, the ectoparasitic mite that feeds on developing and adult bees and transmits several harmful honey bee viruses. *Varroa* can only reproduce inside the capped cells

containing developing honey bee brood. Therefore, when colonies stored indoors experience a broodless period, or “brood break,” *Varroa* are also no longer able to reproduce for the duration of time that the colonies remain broodless.

Brood breaks do not affect the adult *Varroa* population that already exists within the colonies, but the lack of capped brood cells, where as many as 80% of a colony’s *Varroa* population regularly resides, creates conditions that make *Varroa* chemical control treatments much more effective than when applied while brood is present. And because the colonies are all in a single location, *Varroa* treatment application, and any other management actions taken can be accomplished quickly and efficiently. Although this approach may not be fitting for all operations, some beekeepers are now using indoor storage facilities to induce periodic brood breaks outside of wintertime

as part of a comprehensive *Varroa* management plan.

While there are benefits to keeping colonies in cold storage, there are also a number of costs that may make it impractical for some beekeeping operations to use indoor facilities. This includes the initial cost to build a new structure or retrofit an existing building to make it appropriate for bee storage, as well as the cost of the land on which it is built, and the energy required to run it. Though it may not be possible for a beekeeper to build their own facility, some larger operations will rent excess storage space to other beekeepers, making it a realistic management option for smaller-scale beekeeping operations.

Successfully storing colonies indoors for weeks to months at a time also requires a significant amount of planning throughout the rest of the year to ensure that they have been adequately prepared. Unlike colonies kept outdoors, bees that go

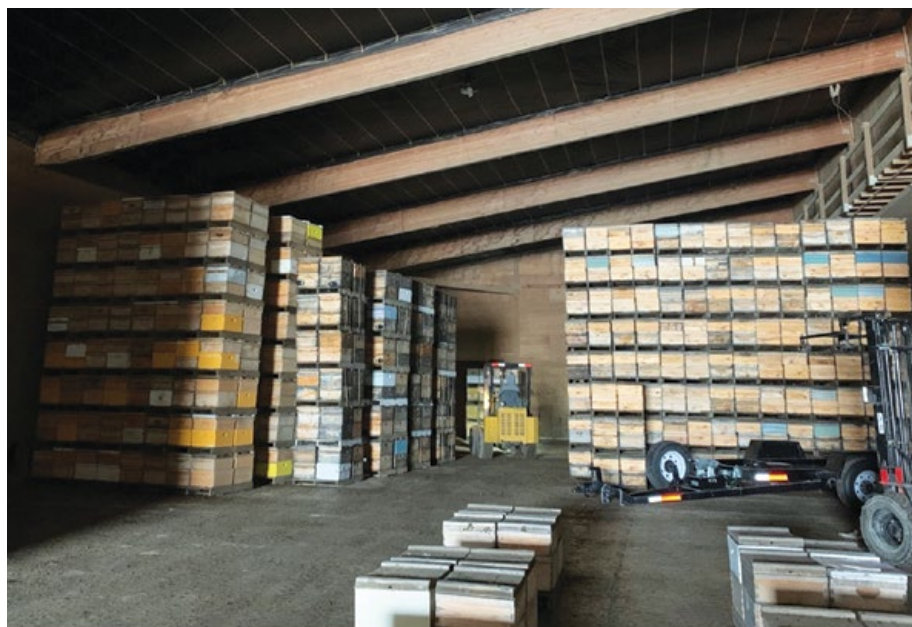


Figure 3: Colonies being moved with a forklift in an indoor storage facility. Photo Credit: Kelly Kulhanek

into storage are intended to remain undisturbed for the duration of their stay. This means that all management actions, such as feeding, culling, or combining weak colonies and treating for *Varroa* and other diseases must be completed before going into storage, so that beekeepers are only paying to store strong, healthy, disease-free colonies. As beekeepers like to say, indoor storage is “a hotel not a hospital” — the condition of the colonies going into storage will dictate their condition when they are removed.

Given the potential benefits that indoor storage may offer to some commercial beekeeping operations, it is not surprising that there has been a recent rise in beekeeper interest in using them. However, additional research is needed to investigate the benefits and disadvantages of indoor storage for colony health and survival rates and to explore ways in which the benefits of indoor storage may be extended beyond its current benefits. Dr. Brandon Hopkins, Assistant Research Professor and Apiary Manager at Washington State University and Dr. Kelly Kulhanek, Postdoctoral Research Associate in the Hopkins Lab, have been a critical part of the research community effort to further study the application for indoor storage in commercial beekeeping operations, and have



Figure 4: Bee Informed Partnership Tech Transfer Team Field Specialist Ben Sallmann performing colony health inspections as part of the WSU Indoor Storage Study. Photo Credit: Ben Sallmann

been integral in developing an indoor storage guide specific for US commercial beekeepers, which is now available at no cost on the *Project Apis m.* website (www.projectapism.org/indoor-storage-of-honey-bees.html). The Bee Informed Partnership’s Technical Transfer Team has also been working with the Hopkins lab, providing field support for their recent work with indoor storage and will continue to do so in the upcoming field seasons.

Building cold storage facilities in California would be welcomed by beekeepers and almond growers for the benefits that would come with keeping bees in close proximity to almond orchards. Unfortunately, California’s extremely high property and energy costs, combined with the higher energy demands required to

keep indoor storage facilities cool when located in warmer climates, make it much more financially attractive to build and maintain facilities outside the state.

The greater number of warm, late autumn days and freeze-thaw cycles during the winter months that colonies wintered in the northern US are now experiencing makes the prospect of storing bees in facilities with controlled, consistent climate conditions more appealing than having to deal with the challenges created by increasingly unpredictable outdoor winter conditions. And whether bees are wintering in Idaho storage sheds or catching a late-spring brood break in a facility further south, it is clear that spending more time indoors is what’s in store for many US honey bee colonies. ♦

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THE ALMOND BOARD

The Almond Board Receives “Business for Bees Sustainability Award”

This past October, the North American Pollinator Protection Campaign (NAPPC) presented its Business for Bees Sustainability Award — an honor reserved for standout organizations that go above and beyond to support pollinators — to the Almond Board of California (ABC) and the state’s almond farmers.

“This is about their long-term dedication to supporting all pollinators in their orchards and throughout our ecosystem,” said Kelly Rourke, executive director of Pollinator Partnership, which founded NAPPC twenty-one years ago. “We’ve worked with them for many years and this is well-deserved recognition of their steadfast commitment to engaging farmers in pollinator conservation on multiple levels. The Almond Board and the entire almond industry have really moved the needle to raise awareness and generate action to protect pollinators.”

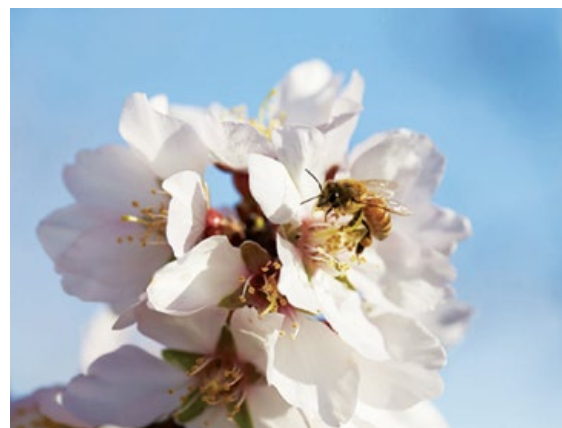
NAPPC has only given out its Business for Bees Sustainability Award once before. It is given in years when a business takes extra special steps to protect bees and all pollinators and to advance sustainability and innovation.

“ABC’s name is on this award, but it really goes to the 7,600 almond farmers in California,” said Josette Lewis, ABC’s chief scientific officer. “Farmers understand how important pollinators are to growing almonds and to all of agriculture and the environment. They want to be part of the solution.”

The reasons for the award, Rourke said, include ABC’s leadership in founding the California Pollinator Coalition, its work promoting on-farm pollinator habitat and its support of years of research and education about the best practices for providing hospitable environments for pollinators in almond orchards and in other habitats.

ABC worked with Pollinator Partnership and the California Department of Food and Agriculture last spring to create the California Pollinator Coalition (CPC) which brought

together a broad array of grower organizations across the state’s ag and environmental landscape to help promote the health of wild and managed pollinators.



“The formation of the California Pollinator Coalition was such a big step,” said Laurie Davies Adams, Pollinator Partnership’s Director of Programs, who helped found the CPC. “This is a unique statewide coalition that brings together every grower, farmer and rancher group. I don’t think that’s ever happened before. It’s going to make a real difference on the ground.”

NAPPC is a collaboration of diverse partners from the U.S., Mexico, and Canada. It includes respected scientists, researchers, businesspeople, conservationists, and government officials. NAPPC works to promote awareness and scientific understanding of pollinators, to find common ground for solutions and to create innovative initiatives that benefit pollinators.

NAPPC is administered and supported by Pollinator Partnership, a non-profit headquartered in San Francisco with a mission to promote the health of pollinators through education, conservation, and research.

The award was announced during NAPPC’s 21st Annual International Conference, held virtually this year for the second time and hosted by the Pollinator Partnership and the Smithsonian National Museum of Natural History. The conference and award ceremony were planned for the

Smithsonian before being forced to remain virtual because of COVID-19.

Rourke and Adams said they would have liked to have given the honor in person to show how much they appreciate ABC's work.

"The strong effort that the Almond Board of California has mounted with the support of the almond industry to engage farmers and the entire agricultural community far beyond almond orchards is really impressive," Adams said. "Bringing every grower group together to have an agriculturally-led coalition for pollinators is significant. It will provide building blocks for even more engagement and large results. It's a pioneering effort that other states are seeking to emulate."

"This is an outstanding honor for our farmers," Lewis said, "especially considering all the good work that NAPPC and the Pollinator Partnership do. As much as anyone, almond farmers are tuned in to the importance of pollinators to their crops and our ecosystem. That's why they work so hard to make their orchards healthy places for pollinators."

Almond farmers across California's Central Valley sit in what is essentially a flyway for pollinators. In recent years, almond farmers have applied to certify more than 110,000 acres of Bee Friendly Farming®, providing pollinator habitat and integrated pest management across the valley to keep that flyway healthy and create badly needed floral resources that compliment and expand beyond the annual almond bloom.

"Almond farmers have doubled the number of acres of bee friendly habit in California and in that pollinator flyway," Lewis said. "We're proud to help lead a broad coalition of agriculture and conservation groups to work together to promote and preserve habitat for pollinators." ◆



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TIME TO CONSIDER

Farewell to Franz

Almond Facts would like to extend a big “thank you” to Franz Niederholzer for faithfully contributing invaluable orchard information for our “Time to Consider” section for the past three years. Thank you, Franz! We truly appreciate your strong work, and we wish you all the best in what’s next for you!

So far, so good. Chilling units are accumulating. Rain fall since October 1 is far above average for this date in many locations. There are a number of tasks that could be done as days shorten and cool. The following are some practices for your consideration.

In a Nutshell:

- Get information together to plan for 2022. Uncertainties in water, nut pricing and costs will require planning for a range of scenarios from good to awful.
- Line up strong hives for pollination this coming bloom. Prep your orchard (roads, drop sites, clean water sources) to support beekeepers delivering this key service.
- Count mummy nuts in the trees and on the ground in every orchard. Decide if sanitation is needed.
- Take spur or shoot sample(s) to look for pests controlled with dormant or delayed dormant sprays (scale, scab, etc.)
- Survey winter weeds emerging in orchards and plan an herbicide program with your PCA.
- Talk with your CCA about winter (dry) versus in-season (water run) potassium application.

Planning:

The water year is way ahead of last year in many areas, but the rodeo isn’t over. The La Niña forecast is unchanged as of October (www.cpc.ncep.noaa.gov) and the November to January rain forecast gives equal chances of normal rain north of Merced, but 30–40% chance of less than normal rain south of there. Careful planning and execution will, again, be critical for success in the coming year due to concerns for good to decent water availability and quality, uncertainties around nut pricing and the rising costs of materials and labor. Given these concerns, consider making farming plans for next season that include a range of scenarios from rosy to bleak. Now is the time to put together the information needed to make tough decisions in 2022 as the operating conditions for the year are clearer. My suggestion is to trim costs in a number of big-ticket practices rather than eliminating one. This should require more management but maintain production and avoid losses that could come with a nutrient deficiency or pest outbreak.

Bees:

Late fall is a very good time to line up strong hives for bloom and prep the orchard for their arrival. Signing a contract now secures quality bees for the coming bloom. It is highly recommended that 1) the contract contains a hive quality statement, 2) the contract includes language establishing hive quality evaluation by a third party at delivery, and 3) growers be prepared to pay a premium for strong hives.

“Strong hives” contain eight or more frames covered on both sides with bees and deliver more pollination than weaker hives. For example, bees from strong hives collected 300% more pollen than those working from weaker hives (four to five

frames) in UC research. Strong hives have more value (do more work critical to setting a good crop) compared to weaker hives and should command a premium. Hives containing less than three frames covered with bees are worthless for commercial almond production.

For an interesting look at bee rental economics, check out the informative article by UC Davis's Dr. Brittany Goodwich and Jennifer Durant at this link... www.wcnngg.com/2020/11/23/2021-almond-pollination-outlook-economic-outlook-and-other-considerations. The second half of the article addresses stocking rates and strategy options.

Prepping for bloom should include providing beekeepers with decent access roads in the orchard, safe places to set hives, and clean water availability. Once bloom arrives, minimal spraying during daytime and keeping insecticides (especially insect growth regulators) out of bloom sprays are important steps to keeping hives healthy.



Late December sanitation photo. Photo credit: Franz

Pest control:

Count mummies in the tree and on the ground. Before January 15, check 20 trees per acre across an orchard, counting

mummy nuts still in the trees and those on the ground. Include all varieties in the survey as navel orangeworm (NOW) can use all varieties for shelter, including hardshells where they survive between the hull and the shell. If there are more than two mummies per tree, on average, then the recommendation is to sanitize the orchard — shake/pole, windrow and shred all nuts with a flail mower. In high NOW pressure areas, the sanitation threshold is an average of one mummy in five trees and eight mummies on the ground under each tree. Mummies should be shaken from the trees by the end of January, perhaps stretching into early February in a normal year, and the nuts shredded no later than March 1. Orchard sanitation is a critical part of NOW control and there is no substitute for orchard sanitation if mummy counts exceed the thresholds listed above.



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A dormant/delayed dormant spray, if needed, can help control two significant pests of almond — scale and almond scab. To find out if a prebloom treatment for either or both of these pests is needed, take dormant spur/twig samples beginning in November. Economic thresholds have been developed to aid in decision making. See details on sampling and thresholds for both pests at: ipm.ucanr.edu/agriculture/almond/Dormant-Spur-or-First-Year-Twig-Sampling-and-Treatment-Guidelines. Oil is important to effective scale and scab control, but consult with an experienced PCA regarding oil use if December and January are dry.

Fall/winter weed control could be more of an issue with the early rains this year pushing winter weed growth. Use herbicide(s) that deliver the best control of current weeds in the orchard. Help matching herbicide to weed population can be found in the UC ANR herbicide efficacy tables at: ipm.ucanr.edu/agriculture/almond/Susceptibility-of-Weeds-in-Almond-to-Herbicide-Control. To help identify weeds in the orchard, pictures of specific weed seedlings and a weed survey form are available at: ipm.ucanr.edu/PMG/C003/m003pcweeds02.html.

Preemergent herbicides offer longer lasting weed control with fewer applications compared to post-emergent ("burndown") herbicides and so should be more cost-effective. Bare soil and incorporation with a small amount (0.25–0.5") of water (rain or irrigation) are needed for best preemergent weed control. Large storms with high rainfall totals are not good for herbicide efficacy as inches of water following spraying can push some amounts of certain herbicides down in the root-zone and below the area near the soil surface where most weeds are found (and controlled with pre-emergent materials). Small rainfall or irrigation events (0.25–0.5") move the herbicide into the soil where it is fixed and not affected by any large rainfall events.

Longer lasting weed control with the same rate/acre of preemergent herbicides can be achieved with multiple applications. For example, recent research by Dr. Brad Hanson and his lab showed that sequential applications (December and March) of two lower doses of an herbicide produced longer weed control than the same total rate per



Sweeper blowing leaves from the tree rows ahead of spraying preemergent herbicide. Photo credit: Franz

acre applied once in December. See details of this work in: ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=29080.

Young orchards in particular can benefit from preemergent herbicide use. Weeds compete with young trees for water and nutrients and hide harmful rodents (voles and gophers). Only a handful of pre-emergent herbicides are labeled (and safe) for use in the first leaf. Check with your PCA regarding materials, rates and timings, and always read the label ahead of application. Also, see the "Weed management in young orchards" in the Young Orchard Handbook (ccfruitandnuts.ucanr.edu/files/238596.pdf)

Gophers can kill almond trees and do not hibernate. See information on gopher control at: ipm.ucanr.edu/PMG/r105600211.html (it's a cherry IPM page, but gopher biology and control information are the same in almond). Better gopher control is achieved when workers are trained in trapping and baiting. See a how-to video on trapping practices with Roger Baldwin, UCCE Specialist, at: www.youtube.com/watch?v=iDW0l6eeG0M.

Soils: Salt Management/Infiltration

If you haven't done so already, take soil samples to assess the salt situation in the root zone of different orchards.

See soil sampling videos at: thealmonddoctor.com/soil-sampling-videos. Review the soil analysis results and summer leaf chloride and sodium levels with your CCA to determine if and how much salt management should be practiced ahead of bud break. See the "Time to Consider" column in the Sept/Oct, 2021 issue for more information on this topic.

Irrigation:

A thorough checkup of well(s), pump(s) and irrigation system(s) may be critical to getting through 2022. A pump test will identify possible major problems such as substantial pressure reductions or water flow rates. Learn how to monitor standing and pumping groundwater levels to track changes in groundwater conditions. To compare current conditions to those when the well was dug, check the Well Completion Report at water.ca.gov/Programs/Groundwater-Management/Wells/Well-Completion-Reports. This site provides information regarding the well conditions at completion of drilling, submitted by the driller as required by regulation. Find out how deep your pump bowls are relative to the pumping water depth. Bowl depth information may have been moved since the well was first completed, so check maintenance/repair records. Thoroughly check filters, pressure gauges, screens, and lines to make sure there are no plugs or leaks. Finally, there is no better tool to check orchard water status than a pressure chamber. For a time investment of around \$1,500–4,500, you will have the means of knowing your trees water status and how your irrigation program is working at any point in time.

Pruning:

Careful scaffold selection, with attention to spacing around and up and down the trunk as well as branch angles, is critical to supporting large crops while limiting the chances for scaffolds to tear out in high wind and/or heavy crop load. If all the scaffolds on a first leaf tree have bad branch angles and are



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IN YOUR ORCHARD

bunched right at the top of the trunk (not uncommon with potted trees planted mid-summer), consider cutting them all off. There should be multiple branches to choose from next year at this time and you will have a stronger orchard.

Fresh pruning wounds + rain = wood canker infections. Protect pruning wounds from disease infection by spraying with Topsin-M after pruning and before rain. Fungicide protection lasts two weeks, so respraying may be needed depending on the weather and timing of pruning. Infection rates were lower in January compared to earlier months (September-December).

Nutrition:

Potassium (K) is the one nutrient with proven economic value commonly applied in the winter. Falling behind on K fertility will reduce yield, as K deficiency (<1% July leaf K) this summer reduces yield next year. Potassium is a big-ticket item needed in large amounts in mature, productive orchards. In a tough economic year, applying some K, even if the rate is less than what's usually applied, should avoid K deficiency while limiting cost (although it's a good idea to take a spring leaf sample to double check that leaf K values are okay). Consult with your CCA about a cost-effective K program for 2022. The most efficient application practices now are delivering dry material to the wetting zones of micro-irrigation systems by banding or targeted broadcasting down the tree row.

Final Thought

When every practice is more expensive (labor, fuel, and/or materials), making sure that the job is done right the first time keeps overall management costs down. Trained staff and well-maintained and/or calibrated equipment are keys to getting the job done right the first time. ♦



Thank you!

This is my last "Time to Consider" column for *Almond Facts*. I thank *Blue Diamond Growers* for the opportunity to contribute to this great publication for the last three years. Best wishes to all for a wet 2021-22 winter and successful crops in years to come.

Franz Niederholzer, UCCE Farm Advisor, Colusa and Sutter/Yuba Counties

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HOBOnet is a cost-effective, web-enabled, remote monitoring solution that:

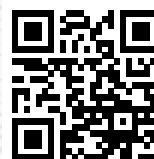
- ✓ Uses wireless sensors to measure temperature, rainfall, wind, and soil moisture at numerous points across your entire almond orchard
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- ✓ Works with HOBOnet's multi-depth sensor to measure soil moisture along the entire root depth, so you can make better irrigation decisions that save water



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WANTED

3-axle Dump truck with steel sides (diesel).

Call (209) 614-2632

WANTED

Used walnut chain for Johnson pickup machine.

Call (209) 838-2108

WANTED

1930-36 cars or pickups and 1932 Ford pines winterfront grille insert also 1930-1934 Ford running chassis.

Call (925) 872-0980

WANTED

Gasoline Memorabilia: Old gas pumps, gas signs, oil signs, car signs, and old cars and pickups.

Call (559) 485-9496

WANTED

Flory 4800 Almond Harvester, self-propelled, with bank-out cart (or newer).

Call Grant at: (559) 897-5495, or (559) 859-5919

FOR SALE

Chandler Spreader: 10' long by 72" top width. 8½ yard capacity. Mechanical PTO drive. Hardly used. \$12,000.

Call (209) 349-2082.

FOR SALE

REARS 500 gallon Power Blast sprayer with 33" fan. Purchased in 2016 new. Used 13 times. Maintained per manufactures recommendations. Asking \$20,000 OBO.

Call (209) 604-7444

FOR SALE

Qty 2 6656 Flory Sweepers: 6½ ft head, Kubota diesel. Field ready. \$29,500 each.

Call (209) 599-7108

FOR SALE

Walnut stakes, 3/4", 10' long, used sucker rod, pallets of 10 or 200 up to 5600 available. \$2.50 each, Escalon area.

Contact (209) 652-5164

FOR SALE

Model B Case tractor circa 1946-50, peach trailers, Almond Roller, Brush fork, Lift for bins, Levee maker, Ridger, Propane tank, Long camper shell, hose pull with sled, International Tractor with front end loader, water pressure tanks, almond bottom dump trailer, windows.

Contact Ann at:
(209) 632-4346 for more info.

FOR SALE

Tree Stakes for Almonds. 1000's of used steel stakes to keep your almond trees growing straight:

- 3' @ 75 cents each
- 4' @ \$1.00 each
- 5' @ \$1.25 each

Please call (209) 969-0526

FOR SALE

(2) Johnson's pickup machines, \$5,500 each or reasonable offer.

Call (559) 485-9496

FOR SALE

Flory 7 ft sweeper head, Series 77. Good condition. \$8,000 OBO.
Call or Text (209) 605-2603.
Manteca area.

FOR SALE

- Rears Orchard Sprayer
- Disc, Springtooth
- Rainbird and Toro Low Impact Sprinklers

Call (559) 268-3087

FOR SALE

- R & L Easy lift Elevator. 10' Height 12" cups. In pieces. FREE!
- Jessee 500 Air leg 32" belt, no motor. FREE!
- 11ft. Orchard float w/ Hydraulic wheels CALL for pictures & pricing.
- 4 Stage sizer, good condition. \$4,000
- 60 H.P. Sturdevant Shell Fan with motor. Complete. \$1,500

Contact Ron Piazza at:
(209) 678-0788

FOR SALE

- OMC Shaker Mono Boom Walnut Pattern. \$350
- Rear end Housing for OMC Shaker Mono Boom Shaker – make offer
- 2 Main Boom Arms to hold up Shaker Head. \$3,000 OBO

For more information call:
(559) 485-9496

FOR SALE

Antique 1946 OS6 International Tractor. In running condition; \$900.
Call 209 658-4521

FOR SALE

Amarillo Irrigation Well Gear Head with PTO shaft. \$850. Used very little.
Call (209) 620-4924

FOR SALE

2008 8 Channel Satake Ultrascan.
\$60,000

- Includes platform, Infeed dump hopper, Anex C-style bucket elevator with 50/50 split buckets
- Stainless steel hopper over chutes has been modified to prevent plugging and bridging of product
- Machine is currently set for 2 passes (4 channels each) and can be run as a single pass (8 channels)
- Walnut Setting (can be converted to Almonds)

Please contact Nina at:
(209) 609-6689

FOR SALE

Beautifully restored to original 1931 Ford Roadster Pickup, \$18,000 or best offer.
Call (925) 872-0980

FOR SALE

2200 lb./hr. almond hulling plant. Two lines, Fadie huller and separator deck with three air-legs. Pre-cleaner 15 ton/hr. with midstate pre-cleaner, H8 Foresberg de-stoner, and Agsco de-twigger. Complete with pit, elevators, cyclones, and 190 ft. hull auger. Sell all or part. Open to offers.

Contact Gale Langum at:
(209) 612-4830

FOR SALE

- 1 x 4 x 8' DF tree props bundles of 200. \$50 ea.
- 1 x 4 x 10' bundles of 200. \$60 ea.

Barn stored in Merced. Call Dan at:
(209) 777-3292

FOR SALE

Used Precleaner. \$150,000. Items include: pit liner and auger; pit elevator; cross conveyor; stick reel; 2 sand screen elevators; 2 sand screens; 2 foresberg P8 destoners; 2 detwiggers; bottom auger flighting; bin elevator; cross bin auger; misc air ducting; misc steel spouting. Does not include: mac baghouse and all connected items; mac baghouse blower; mac baghouse clean air pump.

Contact (209) 358-1759

FOR SALE

- Tractor trailer, 10'x6'-6". 22.5 tires. Crank up ramps. \$4,500
- Enviromist Sprayer. 6'-6" spray band. Brand new. Never used. Cost \$2,500. Sell \$1,250.

Call (209) 537-9491. Ceres.

FOR SALE

'48 Ford Tudor Del. Sedan. All original mechanics. Can be driven anywhere at highway speeds. New interior, plus other nice updates. Black with wide white tires. Call for details – owner too old to drive. \$14,500.

Call (209) 847-3196

FOR SALE

- John Deere low profile 5100ML with exact cab tractor
- 12' V Risimo flail mower
- 8' V Risimo flail mower
- PBM 500 gallon weed sprayer with electric valves (new, never used)
- Durand Wallon 500 gallon tree sprayer
- 12' Domries orchard leveler float

Contact Joe at (209) 404-3326

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Editor: Blue Diamond Growers
P.O. Box 1768, Sacramento, CA 95812

Or contact BDG Communications
Email: communications@bdgrowers.com

Unless advised otherwise, ads will run two consecutive issues. To guarantee placement, classified listings must be submitted by the 10th of: January, March, May, July, September & November.

FOR SALE

Beautiful green 1948 Ford Club Coupe: Columbia Rear End \$25,000 OBO. Twenty milk cans with lids. Heavy Duty Ripper, 3 shanks, \$2,500. Water Tank, 150 gal. also includes a frame with wheels, new tires, and gravity flow, \$1800; used one season. Interested?

Call Arby at: (209) 505-0555
or text (209) 602-1400



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4.5L Cummins Stage V
turbo-diesel engine, 173HP



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Shockwave 3WMB
FRONT-MOUNT TREE SHAKER
4.5L Cummins Stage V
turbo-diesel engine, 173HP



Aftershock CC-350
DUAL-CHAIN CONVEYOR CART
WITH DESTICKER



Aftershock SD-36
SIDE-DUMP FIELD ELEVATOR
WITH DESTICKER AND DIRT CHAIN
3.8L Cummins Stage V turbo-diesel
engine, (no DEF), 74HP



Aftershock AR-400
SIDE-DUMP SHUTTLE
3.8L Cummins Stage V turbo-diesel, 148HP
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