almond facts

NEWS, VIEWS, AND INDUSTRY INSIGHT

NOVEMBER-DECEMBER 2022



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This holiday season get cozy in front of the fireplace with a glass of Almond Breeze® Nog!









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

Almond Facts, established in 1922, is published bimonthly by Blue Diamond Growers, 1802 C Street, Sacramento, California 95811. Address all correspondence to the Editor, Almond Facts, P.O. Box 1768, Sacramento, California 95812. Advertising subscription rates provided upon request.

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ANNUAL MEETING (NOVEMBER 16, 2022) PARTNERING FOR A SUSTAINABLE FUTURE

CEO's Speech

2022 was a year in which we all benefited from the strength of our relationships. Faced with unprecedented challenges, including January's record levels of COVID infections in our plants, inflation levels we have not seen in 40 years, and broken global supply chains, our only course of action was to continue to build partnerships for a sustainable future.

As has been our tradition, you will be introduced to a few of our everyday heroes who have built Blue Diamond partnerships. These exceptional professionals were heroic in the face of extraordinary challenges. The strength of our partnerships has allowed us to achieve amazing successes in the face of unexpected challenges. Our VP of Manufacturing, Jeff Hatfield, has led a team of 1,300 employees across three manufacturing plants. They remained continuously operational by leveraging our already strong safety culture to ensure team members felt safe at work. Being able to comply with a myriad of regulations across federal, state, and local jurisdictions added to the complexity.

Fortunately, this is beginning to feel like past history. However, let us not forget, it was just January when, in our communities, we had the highest tested COVID levels. For their commitment to our mission, please join me in thanking Jeff and his 1,300 manufacturing team members across three campuses!

2022 was also the year when the world realized how fragile our global supply chains could become. We all heard about COVID shutdowns in China, rampant inflation, and the war in Ukraine. As you may know, the almond industry exports two-thirds of our crop and utilizes Oakland as its primary port. In the beginning, when there was a record lineup of ships that could not get unloaded, almonds were the first to suffer. Frustration increased knowing 70% of the vessels leaving to return to Asia were empty. A significant percent of ships skipped the port altogether.

Our Blue Diamond VP of Supply Chain, Steve Schult, stepped into this crisis and partnered with everyone who could help, including California Department of Food and Agriculture, the CEO of Union Pacific Railroad and the Almond Alliance. Together, they collaborated to find new ways to get your almonds to market, including the now famous Almond Express. For his leadership in building partnerships, we offer a huge thanks to Steve Schult.

The team's innovation, partnership, and dogged determination allowed us to ship the 2021 crop.

In the process we opened new pathways for the entire almond industry and California agriculture. Ultimately, we want the entire industry to be healthy! One of *Blue Diamond's* big leaps forward continues to be in our Orchard Stewardship Incentive Program (OSIP). It might interest you to know that 40% of *Blue Diamond* acres are now enrolled in this program. To date, these growers have already earned \$1.75 million in incentives for their efforts.

This year, with significant thoughtfulness and validation, we published *Blue Diamond's* first sustainability report. We are proud of all the demonstrated progress we have made in sustainability and our efforts to build a compelling plan for the future. As a result of these efforts, the USDA awarded *Blue Diamond* a \$45 million grant! Every great success requires leadership, and we are blessed with true sustainability leaders such as: VP of Membership, Mel Machado, Director of Sustainability, Dr. Dan Sonke, and Director of Government Relations, Alicia Rockwell. Thank you for your sustainability leadership.

Six years ago in my presentation, I made the bold claim that Blue Diamond aspired to make Amazon one of our top five customers. At the time, it was not even in the top 75. Two years ago, with a little help from COVID shopping, we achieved our goal ahead of schedule. Good news! Amazon noticed our tremendous progress and we are now part of the Amazon Vendor Flex Program. Amazon Vendor Flex is an Amazon warehouse within a Blue Diamond warehouse from which we ship directly creating significant savings to Blue Diamond and strengthening our relationship with Amazon.

Over many years, we have been planting the seeds of growth. We have built great partnerships in strategic markets around the globe. Last year, continuing a trend in international markets, we were fortunate to drive 17% growth! Almond Breeze® has success stories in Asian, South American and European markets, and we received tremendous retail support. For their effort in bringing our Almond Breeze® to world, I'd like to thank Dale Tipple and the entire International Retail team.

As you know, our *Blue Diamond* mission, our reason for being, is to maximize returns for you, our growers. Your faith in giving us your year's work in the form of the almond crop is a tremendous responsibility. I have always considered our higher purpose, as a co-op, is to provide sustainable economics that allow our farm families to pass their farms to the next generation. This is especially important when almond prices are in a low cycle and your farming costs continue to rise. In this environment, our team members know that every penny matters. Our commitment has always been, and will always be, to continue to focus on how we can deliver better returns.

When I started at *Blue Diamond*, the goal was to simply achieve competitive returns. *Blue Diamond* enjoyed a good track record of beating the competitive handlers by \$.01 a pound. For the 2010 return, with a \$.03 advantage, I vividly remember the many calls of congratulations, mostly saying, "Great return, Mark!"

You, our growers, inspired the entire team to set the bar higher. Some will recall the goal of a dime, then \$.15. For the 2020 crop, we cleared \$.20. Knowing how important every penny is to our growers in this environment, for the 2021 crop, we set a new standard with a record \$.27 advantage. Equally important, your total final payment represents an increase of \$.20 a pound versus last year.

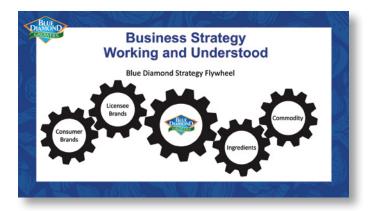
When I was interviewing for the CEO role at *Blue Diamond*, our then board chair, Clinton Shick asked, "Mark, if selected, how long would you serve as CEO?" I responded, "10 years would be ideal." Then my thinking was that 10 years is much longer than average, yet not to the point of staying too long. The first nine years flew by as we were committed to transforming this co-op into a global branded food company. Then came the great Sacramento plant fire. It was not the right time. There was way too much work to be done. In my 10^{th} year, the COVID pandemic began, and we focused on how to keep team members safe and plants running. To me, this was a leadership calling that was the most important of my business career. Clearly, it was not the right time.

PRESIDENT'S CORNER

In year 11, we got better at managing the pandemic, however, record inflation and the inability of California agriculture to export were new significant threats. Again, it was not the right time. In year 12, we built resilience into our manufacturing and innovation into our supply chains. While there will be new challenges, now is a good time for *Blue Diamond* to make a change in leadership.

You will be comforted to know that the financial health of your co-op has never been stronger. You are familiar with the superior competitive returns, and equally important, Blue Diamond has an investment grade balance sheet that continues to grow stronger. This provides you, our growers, the certainty that you will always be paid on time. In addition, this financial health provides the means to reinvest in continuing the profitable growth of the co-op.

The business strategy which has guided our success is well understood by the leadership of *Blue Diamond*. We have four unique businesses: consumer brands, licensee brands, ingredients and commodity that work together as cogs in driving the overall success for *Blue Diamond*. We call this our strategy flywheel. What makes this focused strategy work are the people of *Blue Diamond*. We have the best people! We compete against the Coca Cola® and Pepsi® companies of the business world and win.



At Blue Diamond, great people, hire great people, who hire great people who are all committed to serving you, our grower-owners. The talent of Blue Diamond is exceptional, and it is many layers deep. We are blessed with an extraordinary executive team whom I

thank for their years of leadership! Amongst their many accomplishments, their most important may be hiring and preparing the next generation to lead.



The financial strength, working strategy and management talent make this the right time for *Blue Diamond* to undergo a CEO change. For me personally, it is also the right time. *Blue Diamond* is a family business. You know how important family is to me. This summer, Carolyn and I will be empty nesters. Our oldest, Holly, is married and living in Chicago. Our middle child, Lindsey, is happily living and working in Denver. And our 6-foot-3 baby, Noah, will be going to college in Minnesota. This summer, we are looking forward to a big family trip, time at a Minnesota lake house and the freedom to attend our son's college football games.

The board has been equally thoughtful about this transition. It began over the summer after Chairman Dan tried to get me to stay on by offering to mow my lawn; I still appreciate the sentiment. In October, Blue Diamond announced, first to you our team members and growerowners and then to the business world, that now was the right time. After the announcement was released, our Director of Communications, Lynn Machon came to me with some regret, saying "there is almost no interest from the press." I responded, "perfect!" There is no drama so of course the media has limited interest.

The truth is everybody knows that *Blue Diamond* is going from strength to strength. In the meantime, I am not going anywhere soon. My continued focus is leading *Blue Diamond*. Beyond that, I am partnering with the board

on the search. When the next leader is identified, I have committed to stay on to ensure a graceful transition. This will continue to be an extremely well planned and collaborative process.

As this will be my last annual meeting presentation, my regret is that it is impossible to personally call out everyone deserving of thanks. Here are a few people that have been heroes to me and also to *Blue Diamond*:

My first Blue Diamond hire was my executive assistant, Laura Elkins. Her organizational planning and communication skills have been a force multiplier to me. Her relentlessly positive energy has helped make Blue Diamond an even better place, especially for the board and me. Thank you, Laura.

My second hire was our CFO, Dean LaVallee. He came highly recommended to me from the former CFO at Kraft. In hiring Dean, I told the board my expectation was that I would be getting a partner in running *Blue Diamond*. For the past 11 years, he has exceeded my expectations! It is only appropriate that Dean now has the COO title in addition to CFO. Dean, thank you for making me look good!

Brian Barczak was hired to replace a *Blue Diamond* legend, Bruce Lish, as VP of Manufacturing. Brian transformed manufacturing, established a safety culture, and always showed up as a great teammate on the executive team. With demonstrated capabilities, his role expanded and today he is SVP of Global Supply. Brian, thank you for your extreme competence in leading over 80% of *Blue Diamond's* team members! Especially, through all the challenges of recent times.

One of the secrets to enjoying your work is liking who you work for. What an honor to have the opportunity to work for California almond farmers. It is one of the best parts of being CEO at *Blue Diamond*. From almost 13 years ago, thank you to my first boss Clinton Shick and all the board members who hired me. Over the years, I am grateful that I have come to see many of you, our grower-owners, also as friends. Special thanks to Dick Braden, who served as an early mentor.





I am still excited to come to work each day and that would not be possible without a great board of directors. Thank you, Directors and a special thanks to Chairman Dan Cummings. The most important ingredient in any successful co-op is a strong board.

Every year, I have closed my annual meeting remarks the same way. As I reflect over the past 12 years, and look into the future with our strong team, I confidently believe, for Blue Diamond, the Best is Yet to Come!

Marke

Mark Jansen President & CEO





Annual Meeting 2022 Chairman's Speech

On behalf of our entire co-op, I want to express our gratitude for Mark's leadership over the last 12 years. His leadership of our robust annual five-year strategic planning retreats has been inspirational to the board and senior management and instrumental to the success we have achieved these past 12 years.

During his tenure, Mark has gained great respect, not only from the board of directors, but from our grower-owners, employees, our business partners domestic and abroad, and our entire industry. Mark's strategic vision and focus on expanding our global marketplace has positioned *Blue Diamond* extremely well for the future. He will forever be part of our *Blue Diamond* legacy.

I've had the honor of serving as your District 1 Director since 2006, and Board Chairman since 2014. As most of you know I'm a proud, third generation Blue Diamond grower. My family has been part of this co-op for nearly 100 years, through good crop years and challenging ones, through the highs and lows of almond values. And I have to say, I don't think I've ever been more optimistic about this cooperative's future.

The theme of our annual meeting and the co-op's traditional annual report this year is "Partnering for a Sustainable Future." As you know, this is a significant year for sustainability throughout our co-op. In fact, this year we officially rolled out our first stand-alone sustainability report that provides details and metrics about the great progress that has been made in our orchards and our facilities. I'm incredibly proud of our growers' participation in the Orchard Stewardship Incentive Program (OSIP). When Mark asked all growers who have achieved OSIP diamond levels to stand up during the Annual Meeting, it was impressive.

Our co-op's commitment to sustainability holds special significance to me, personally.

I'm proud to have been one of the original founders of Project Apis m. in 2006 and served as chairman of that board from 2006 to 2012. I'd like to recognize our own Christine Gemperle as a board member of Project Apis m. This year, Project Apis m. achieved an incredible milestone. To date, the nonprofit has funded \$10 million in more than 150 research projects and forage programs with the single goal of protecting and improving honey bee health and vitality.

I'm thrilled that *Blue Diamond* will further be collaborating with Project *Apis m.* as one of our partners through the \$45 million grant awarded to us by the USDA for climate smart projects.

This historic USDA grant is a fantastic example of what can be accomplished through collaborative partnerships between government and industry stakeholders. It demonstrates the importance of *Blue Diamond's* Political Action Committee (PAC). Our PAC works to engage and educate key federal and state legislators and policy makers on issues important to California's almond industry and the sustainability of our planet.

I want to point out that the definition of sustainability goes beyond environmental impacts on our planet, or in our *Blue Diamond* orchards and facilities. The concept of true sustainability is what our co-op was founded on in 1910.



The strength of our collective partnership is what sustains our future. Especially in crop years like we just experienced, where many of us growers faced significant challenges with weather and operational costs, the strength of this co-op helped sustain our farms, our livelihood

Mark talked about some of the incredible innovations we've made in finding new uses and markets for our almonds, and the hurdles we overcame with supply chain and shipping challenges. Those solutions were only possible because of the strong and dedicated leadership of our board of directors and our co-op leadership team. I want to assure you that our co-op's leadership team will continue to be a dynamic force in the industry.

When Mark approached me a few months ago to discuss timing of a transition, it's true I really did initially try to talk him out of it. But we both agreed, as did the rest of your board, that the time is right, and the co-op is well-positioned for a leadership transition.

The board's CEO Succession Team has been hard at work, talking with incredible candidates — both internal to Blue Diamond and some external to our co-op, with strong CPG experience. I couldn't be more optimistic about the future. I know we'll find the right fit in our next CEO, someone who shares our Blue Diamond values and commitment to the sustainability of our co-op and its grower-owners' needs. Be assured your board is committed to communicating progress with our grower community as succession updates are available.

In keeping with that focus on our future, another key to the sustainability of our co-op and California's agriculture industry is our ability to nurture the next generation of farmers and industry leaders. *Blue Diamond* fosters leadership in current and future *Blue Diamond* members through several different programs.

The first is through our *Blue Diamond* Leadership Program, that since its inception with my inaugural class of 1994 has graduated more than 500 members. Last night we honored our 2022 Leadership Program class with a special graduation dinner. I'd also like to acknowledge and thank Kent Stenderup for serving as program chair.

A second way we nurture future farmers is through our long-standing partnership with Future Farmers of America, or FFA. Many still have their blue jackets from their early years with the iconic organization that promotes education and excellence in agriculture. I'm proud that Blue Diamond Growers once again committed to match Giving Tuesday donations to FFA up to \$25,000 to help raise funds for those distinctive blue jackets.

The third way we support the next generation of ag leaders is by providing college scholarships to local high school students through the *Blue Diamond Growers* Foundation. I'd like to recognize John Monroe's dedication and passion as president of the Foundation.

This year, we lost a dear friend, Bob Weimer, who was District 7 board director from 2004–2017. Bob was the



inspiration and champion in creating the Blue Diamond Growers Foundation for the purpose of awarding scholarships to students from our almond growing regions who are seeking a four-year degree in an agricultural field.

To honor Bob Weimer's contributions to Blue Diamond and to the

almond industry, I'm proud to announce that *Blue Diamond* will match up to \$50,000 to the Foundation to broaden the impact of our Scholarship Program. Please note that there is a donation envelope in this issue of the magazine, right in the center. Please consider supporting the Foundation's Scholarship Program as you make your end of year donations.

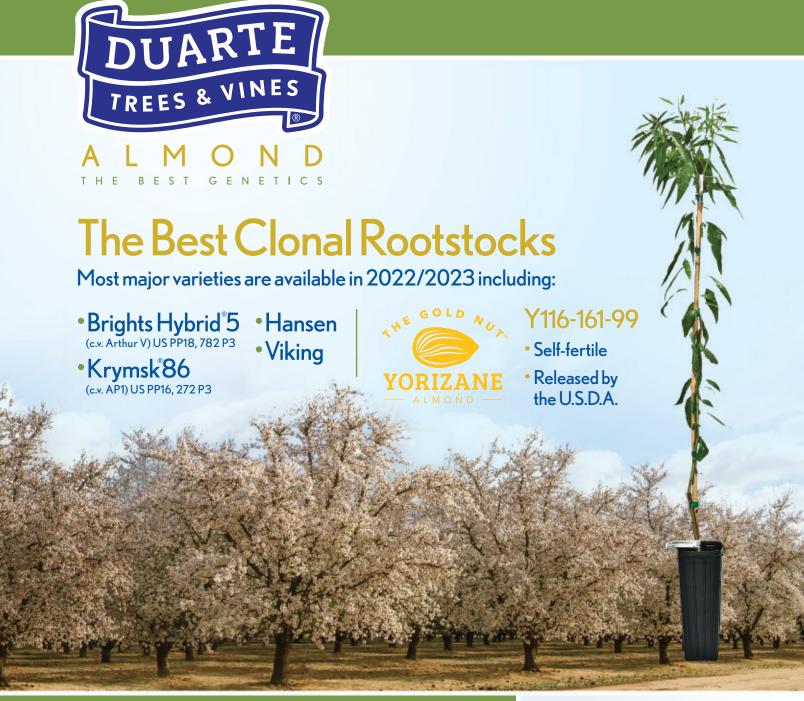
CHAIRMAN'S MESSAGE

Each year I have the privilege of recognizing one Blue Diamond member for outstanding service and unwavering commitment to the overall success of the Blue Diamond cooperative. This year's award goes to a grower who has been an excellent representative of California agriculture and of the almond industry, in particular. This grower's family joined Blue Diamond as they planted their first orchard in the early 1980's. Today, their three Blue Diamond contracts in Merced and Madera counties are all enrolled in OSIP at Triple Diamond levels. And they frequently host tourist groups to explain the benefits of production agriculture in California.



In addition to his commitment to sustainability and excellence as a *Blue Diamond* member, this grower has held numerous leadership positions in the ag industry and throughout his community. I am thrilled to name Dan Clendenin as this year's recipient of the Chairman's Ambassador of the Year award. Congratulations, Dan, and thank you for your contributions to *Blue Diamond*.

I wish you and your families a safe and healthy holiday season. •



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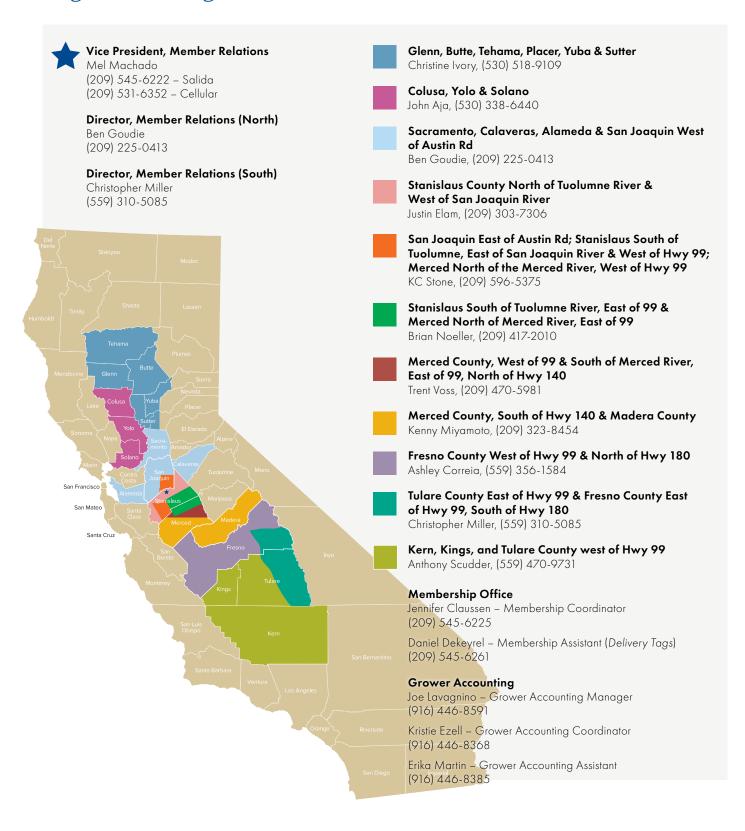
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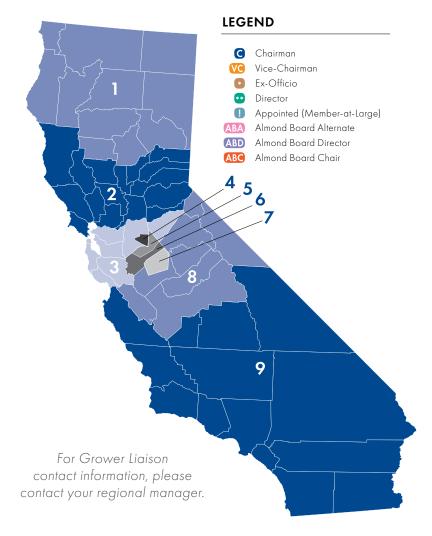
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112th Annual Meeting Highlighted a Year of Record Profitability — Overcoming Inflation and Shipping Challenges

Out-going CEO, Mark Jansen, Conveys to Membership that the Co-op Strategy, Talent, and Financials Never Stronger

At the 112th Blue Diamond Growers Annual Meeting held November 16, 2022 in Modesto, CA, Blue Diamond Growers President and CEO, Mark Jansen, highlighted the accomplishments of the past year, while recognizing remarkable headwinds the cooperative tackled through creative solutions, strategic partnerships, and world-class innovation.



"Although 2022 was marked by supply chain disruptions, the ongoing COVID-19 impact, and a continuing drought, we still fulfilled our mission and provided considerable competitive advantage with our grower returns," said Jansen. "It could not have happened without the dedication of our 3,000 grower-owners or the 1,800 hard-working *Blue Diamond* team members."

Jansen further reported that despite the many challenges of the year, *Blue Diamond* was able to increase payments by an average of \$.20 a pound and deliver a record competitive advantage in grower returns.

In an additional highlight, he shared that to counter global transportation disruptions, the *Blue Diamond* Supply Chain Team worked with the Almond Alliance, California Department of Food and Agriculture, and the California

Governor's Office of Business Development to build a new multi-port export strategy. This included implementing a pop-up yard at the Port of Oakland to stage products closer to the port to reduce wait times at congested terminals. In addition, the Supply Chain Team partnered on the launch of the first inland direct rail port from Fresno to the Port of Los Angeles. Based on these learnings, the team spearheaded the Almond Express train to carry containers from Oakland to Los Angeles, Long Beach and Norfolk, Virginia. The containers were then offloaded onto terminal docks for guaranteed export to Asia, the Middle East and India.

"Navigating the global supply chain issues and devising creative solutions — while working alongside our partners — is just one way we remained true to our vision of delivering the benefits of almonds to the world," said Jansen.

Navigating the global supply chain issues and devising creative solutions—while working alongside our partners— is just one way we remained true to our vision of delivering the benefits of almonds to the world.

-Mark Jansen, President and CEO, Blue Diamond Growers



At the meeting, it was shared that during fiscal year 2022 Blue Diamond was able to:

- Deliver its share of the California almond industry's second largest crop of 2.8 billion meat pounds; closely following the record 3.1-billion-pound crop of 2020;
- Develop new value-added uses for almonds through ongoing new product development via the Almond Innovation Center (AIC). As a result, AIC delivered \$90 million in innovation revenue and 18.9 million pounds of innovation volume for Blue Diamond;
- Launch several new Blue Diamond branded consumer products including Extra Creamy Almond Breeze®, Almond & Oat Almond Breeze® (international markets) and new Snack Almonds (Chilé 'n Lime, Probiotics, Elote, Korean BBQ, and Mash Ups);
- Sell 83 million pounds of almonds as part of Blue Diamond's Snack Almond line alone, while remaining the No. 1 almondmilk in the plant-based milk category;

- Achieve 17% volume growth compared to the previous year for Almond Breeze® products in more than 70 countries — via a global network of licensee partners;
- Increase Global Ingredient sales from new customer applications of almond butter, almond flour, and almond protein powder;
- Open new markets in Uganda, Ghana, Kenya, Bolivia and Argentina, while driving 33% volume growth in Asia.

"Blue Diamond has experienced substantial growth in recent years through thoughtful, smart decisions and actions," said Dan Cummings, Chairman of the Board, Blue Diamond Growers. "With our focus on innovation, deeply established partnerships, and steadfast commitment to going above and beyond to deliver on consumer and retail demands, I expect this progress to continue well into the future."

NEWS IN A NUTSHELL

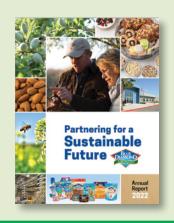
In addition to sharing highlights from the past year, Blue Diamond also announced its continuing board members, including:

- Dan Cummings, Chairman, District 1, Chico
- John Monroe, District 2, Arbuckle
- Dale Van Groningen, District 3, Ripon
- George A. te Velde, District 4, Ripon/Escalon
- Steve Van Duyn, Vice Chairman, District 5, Modesto/Ripon
- Nick Blom, District 6, Turlock
- Dan Mendenhall, District 7, Winton
- Matthew Efird, District 8, Fresno
- Kent Stenderup, District 9, Arvin
- Joe Huston, Director-at-Large, Monterey
- Kristin Daley, Director-at-Large, San Francisco

Blue Diamond has experienced substantial growth in recent years through thoughtful, smart decisions and actions.

—Dan Cummings, Chairman of the Board, Blue Diamond Growers

In conjunction with the Annual Meeting, Blue Diamond also released its "Partnering for a Sustainable Future" Annual Report and inaugural "Growing a Better Tomorrow" Sustainability Report. Both reports are available on the Blue Diamond website at the bottom of our Press page: www.bluediamond.com/press or via the QR codes below.



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#WeAreBlueDiamond Social Media Activity







Along with Blue Diamond's 112th Annual Meeting held on November 16, the co-op also celebrated and thanked their employees on Veterans Day — who have served in the military — with a breakfast and a special gift. The celebrations continued with appreciation block parties at each site and by observing Manufacturing Day. Our teamwork makes this co-op the success it is! We also celebrated our growers and the legacy they leave to the next generation of almond farmers. Finally, we also helped with the Salvation Army's Annual Kettle Kickoff luncheon that raises funds to support those in need during the holiday season. •





BLUE DIAMOND INVESTMENT PROGRAMS

Current Investment Rates available as of December 1, 2022

Blue Diamond Growers offers members short-term and longterm 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 December 1, 2022, for the program are listed here:

BLUE DIAMOND GROWERS	Short-Term Investment Certificate (STIC)	Long-Term Investment Certificate (LTIC) (Maturity Date of 6/30/2025)
Initial Investment Required	\$1,000	\$50,000
Interest Rate	4.75%	2.95%
	(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.

Nog Snickerdoodle Whoopie Pies

Cooking Time: 15 minutes Difficulty: Medium Servings: 24

Ingredients

Cookies

- ¾ cup butter, softened
- 1¼ cup granulated sugar, divided
- ½ cup brown sugar, packed
- 2 large eggs
- ²/₃ cup Almond Breeze® Almondmilk Nog
- 1½ teaspoons vanilla extract
- 3 cups all-purpose flour
- ½ teaspoon salt
- ½ teaspoon baking soda
- ¾ teaspoon ground nutmeg
- 2 teaspoons cream of tartar
- 2 teaspoons ground cinnamon

Filling

- ½ cup softened butter
- 1 ounce cream cheese, softened
- 1 teaspoon vanilla extract
- · Pinch of salt
- 3 cups powdered sugar
- ¼ cup Almond Breeze® Almondmilk Nog

Directions

- 1. Preheat oven to 350°F degrees and lightly grease a large baking sheet.
- 2. In a large bowl cream together butter, 1 cup sugar, and brown sugar until light and fluffy (2-3 minutes on high speed).
- 3. Add Almond Breeze® Nog, eggs, and vanilla and mix until smooth. In a medium bowl whisk together flour, salt, baking soda, nutmeg, and cream of tartar.



- 4. Add dry ingredients to wet ingredients and mix until combined.
- 5. In a small bowl whisk together remaining ¼ cup sugar and cinnamon. Roll cookie dough into 1-inch balls, then roll in the cinnamon-sugar mixture and place 1-inch apart on prepared baking sheet.
- 6. Bake for 12–15 minutes until very lightly golden brown. Allow to cool completely on wire rack. In a large bowl cream together butter, cream cheese, and vanilla until very light and fluffy, about 2-3 minutes on high speed.
- 7. Add salt, and gradually add powdered sugar until completely incorporated. Add ¼ cup nog and mix on high speed until light and creamy, about 3 minutes. Add more Almond Breeze® Nog as needed to reach a smooth, spreadable consistency (but not runny).
- 8. Flip half of the cookies up-side down, spread with filling, then top with a second cookie right-side up. Serve immediately or store in an airtight container at room temperature up to three days.

Peppermint Hot Cocoa Cookies

Cooking Time: 13 minutes Difficulty: Medium Servings: 12

Ingredients

Peppermint Fudge

- ¼ cup unsweetened cocoa powder
- 3/3 cup Almond Breeze® Chocolate Almondmilk
- ¾ cups semi-sweet chocolate chips
- 5 ounces chopped dark chocolate or ¾ cup additional chocolate chips (70% dark recommended)
- 2 tablespoons salted butter, cubed
- 1 teaspoon peppermint extract

Cookies

- 2 sticks (1 cup) salted butter, at room temperature
- ¾ cup dark brown sugar
- ¼ cup granulated sugar (use ½ cup for a sweeter cookie)
- 2 large eggs, at room temperature
- 2 teaspoons vanilla extract
- 2¼ cups all-purpose flour
- 1 teaspoon baking soda



Directions

- 1. To make the peppermint fudge filling: In a medium bowl, melt together cocoa powder, Almond Breeze® Chocolate Almondmilk, chocolate chips, dark chocolate, and butter in the microwave for 1–2 minutes, until smooth. Stir in the peppermint. You can also use a candy cane if you have one and stir into the hot chocolate mixture until half of it dissolves into the fudge. Transfer to a glass container. Freeze 30 minutes until firm.
- 2. Roll the fudge sauce into scant tablespoon-size balls and place on a parchment lined baking sheet. Freeze until firm, at least 30 minutes or overnight.
- 3. To make the cookies: Preheat the oven to 350°F. Line a baking sheet with parchment paper. In a large mixing bowl, beat together the butter, brown sugar, and granulated sugar until combined. Beat in the eggs, one at a time, until combined.
- 4. Add the vanilla, beating until creamy. Add the flour and baking soda. Remove two of the frozen fudge balls and cut into four pieces. Fold chunks of fudge into dough, leaving streaks of fudge throughout. Roll the cookie dough into 2 tablespoon-size balls.
- 5. Place one frozen fudge ball in the center of the dough, pushing down gently into the dough. Add one additional tablespoon size cookie dough ball on top, sealing the dough around the fudge.
- 6. Place the balls 3-inches apart on the prepared baking sheet (don't bake more than four cookies per baking sheet). Transfer to the oven and bake for 8 minutes.
- 7. Remove the pan from the oven and tap the baking sheet on the counter three times to flatten them down.
- 8. Return to the oven and bake another 4–5 minutes or until the cookies are just beginning to set on the edges, but still doughy in the center. Remove from the oven and tap the baking sheet on the counter 2–3 times to flatten them down again.
- 9. Let the cookies cool on the baking sheet. They will continue to cook slightly as they sit on the baking sheet. Enjoy warm!



Whole Foods Meeting

Blue Diamond goes to great lengths to market our growers' almonds! This picture is from early fall in the orchard of a grower family during a meeting with Whole Foods buyers. Yes, they are wearing Blue Diamond hats! •

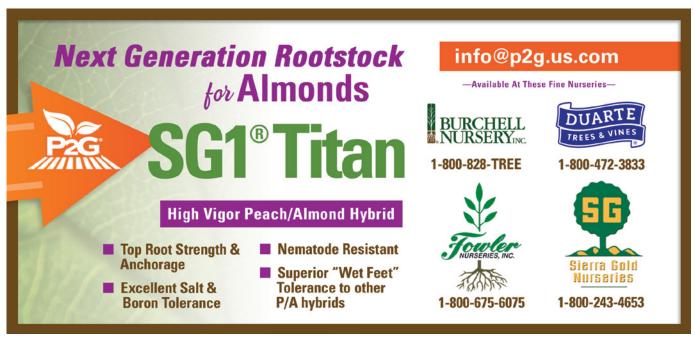
Pictured from left to right:

Jim Leavitt – Director of Sales, Channel/Broker Accounts (Blue Diamond)

Trey McLean – Category Manager – Functional Snacks (Whole Foods)

Nicole Matuska – Category Manager – Cookie/Cracker (Whole Foods)

Lori Yando - Sales Director - Natural Channel (Blue Diamond)



Blue Diamond's Strong International Presence

SIAL Paris Trade Show



Blue Diamond's International Consumer (IC) and Global Ingredients Division (GID) teams exhibited at SIAL-Paris trade show, demonstrating the strength of Blue Diamond in the international food industry. Blue Diamond invited guests to the residence of the U.S. Ambassador of France for a USDA reception.

Thailand's Jae (Vegetarian) Festival



Philippines Market Visit



In store visibility and collaborations with local coffee shop chains.

Blue Diamond Leadership Program Graduation Dinner



The evening of Tuesday, November 15 was a special night for 16 Blue Diamond growers and seven banking and industry representatives. It was the graduation recognition dinner for the 2020 and 2022 Blue Diamond Leadership Program. The program consisted of two, enriching daylong sessions and field days over the course of the year where participants learned about growing as a leader in the almond industry and how to be a positive voice for agriculture. We welcomed back those from the 2020 class to complete the program, which was postponed because of COVID-19.

Kent Stenderup (Leadership Program Chair) and Dan Cummings (Blue Diamond Chairman of the Board) provided some encouraging comments over dinner. Graduates were acknowledged for their achievements and received recognition. Over the course of dinner, attendees enjoyed a panel discussing leadership styles, experiences, and advice from Blue Diamond leaders: Mark Jansen (President & CEO), Dean LaVallee (CFO & COO), Brian Barczak (SVP Global Supply), Laura Gerhard (VP Global Ingredients Division), and moderated by Kabir Tumber (Manager of Membership Development). •

Congratulations

to the Blue Diamond Leadership Program Class of 2020 and 2022 Graduates!

Giving the Gift of Blue for *Blue Diamond*'s Giving Tuesday Match Benefiting FFA

On Tuesday, November 29, 2022, Blue Diamond Growers acted as a matching sponsor for Giving Tuesday for the California FFA Foundation.

California FFA Foundation designates Giving Tuesday to raise funds for the iconic blue jackets for students who may not be able to afford one. For every \$85 donated, you can gift a California FFA member with their very own jacket, tie or scarf. A jacket with their name will open doors and empower them to pursue the opportunities FFA and the agricultural industry provides them.

As a partner to FFA, *Blue Diamond* matched donations up to \$25,000 — that's 294 jackets!

"This is our sixth Giving Tuesday raising funds to give the Gift of Blue. Working with *Blue Diamond Growers*, the world's leading almond brand, we've raised more than \$314,000 and provided 4,126 jackets to FFA members throughout California," shared Emily Rooney, President, Agricultural Council of California and

California FFA Foundation Chair. "It's rewarding to see our alumni and industry come together to make a difference for the next generation of the agriculture industry."

Even after Giving Tuesday concludes, you may still donate to help FFA students purchase their jackets. Let's give every FFA member the chance to be part of the tradition.

Scan the QR code below or visit www.calaged.org/give/donate to give online.

You can also mail a check payable to the California FFA Foundation to: P.O. Box 186, Galt, CA 95632



Thank you for your support!



—Dan Cummings, Board Chairman for Blue Diamond Growers



Blue Diamond Growers Foundation Scholarship available for 2023–2024 School Year













Scholarship Requirements:

- Must currently live in Almond Growing Regions of California
- Must intend to pursue college major in Agriculture related field, with specific emphasis on plant and crop-related majors
- Must have 3.3 GPA or higher
- Enrollment verification to a college or university offering a four-year degree will be required for disbursement of award funds
- Application deadline: March 31, 2023

This is a one-time award. Applicants who have applied and not previously been awarded a Blue Diamond Growers Foundation Scholarship may re-apply.

Scholarship is available to applicants entering any year of a four-year degree program.







Blue Diamond Growers Foundation Scholarship Fund Matching Grant

In Memory of —— Robert Weimer

Blue Diamond Growers will match donations to the Blue Diamond Growers Foundation scholarship fund up to \$50,000 in memory of Robert Weimer.

Bob Weimer, District 7 Board Director from 2004 to 2017, passed away on January 20, 2022. He was the inspiration behind the creation of the Blue Diamond Growers Foundation and served as the Foundation's first President. Created in 2010, the Foundation has distributed over 175 scholarships to students who live in the almond growing regions of California and will attend a four-year degree program with a focus in agriculture.



To make a contribution:

- Write a check and send in the envelope provided in this magazine, or mail to:
 Blue Diamond Growers Foundation
 Attention Finance Department
 1802 C Street, Sacramento, CA 95811
- Go to www.bluediamondgrowers.com/scholarship-program and use the PayPal link.
- All donations made between November 16 and December 31, 2022 will be matched, up to a total of \$50,000.
- · All donations are tax deductible.



Agricultural Advocacy — It's Not Just About Us

Some say agricultural advocacy in California is like a full-contact sport. Though an exaggeration, it's not too far off-base at times.

It takes a tremendous amount of willpower, patience, and tenacity to pursue our advocacy goals in the State of California. The stakes are high for your cooperative, your own businesses and families, as well as the agricultural community statewide.

Issues evolve quickly, and we live in one of the most progressive states in the nation. Oftentimes, we feel as if there's a firehose of legislative and regulatory issues coming at us. Should we view this as a battle or take off our armor and see it as an opportunity?

We believe the latter

At Ag Council, our approach is not to simply look at what is in front of us, but to look at the long game, and ask, how can we help shape the issues? In addition, who are the like-minded partners?

As part of the process, we believe an effective approach is to demonstrate that the policies we seek to implement are not just good for agriculture, they are good for all Californians.

In other words, it's not just about us, it's about what's best for everyone.

This way of thinking is summarized in the book The Infinite Game by Simon Sinek. He said, "To ask, 'What's best for me' is finite thinking. To ask, 'What's best for us' is infinite thinking."

To ask, 'What's best for me' is finite thinking. To ask, 'What's best for us' is infinite thinking. 99

—Simon Sinek, The Infinite Game

What does infinite thinking look like in practice?

In 2022, Ag Council and Blue Diamond secured a few wins to benefit not only agriculture, but our workforce and our communities.

This past year, union organizations joined with Ag Council in the pursuit to pass the Buy American Food Act, SB 490 by Senator Caballero (D-Merced). Why? Because we knew if we worked together, we had a better chance of attaining something that no other state had done establishing a Buy American procurement standard prioritizing the use of taxpayer dollars to purchase domestic food for public schools. After a tremendous effort by all involved, including resurrecting the bill at the end of session, it was signed into law this year.

How did SB 490 get passed? We made sure it wasn't just about us.

For the first time under Governor Newsom's tenure, the Food Production Investment Program (FPIP) received funding in the state budget. After pursuing these dollars for the past few years, we were successful in attaining nearly \$24 million in General Fund dollars for FPIP, which will soon be available for California-based food processors to leverage state grant dollars with private funds to implement energy efficiency projects to reduce greenhouse gas emissions.

In addition to being positive for food processors, the vast majority of FPIP projects are in disadvantaged communities and bring about cleaner air to benefit human health. Put simply, it's not just about us.

Blue Diamond previously received a grant award through FPIP and the cooperative and growers understand the value it brings to our members. We are hopeful Blue Diamond and other Ag Council members will apply once the funds become available

In the quest to improve water supply resources, multiple legislators from across the political spectrum and organizations from throughout the state are supporting hundreds of millions in funding to repair canal infrastructure, secure clean drinking water supply and build Sites Reservoir, which has agricultural, environmental, and residential benefits in Northern, Central and Southern California.

In other words, it's not just about us.

The federal USDA climate smart funding awarded to *Blue Diamond Growers* to expand stewardship practices is another example of infinite thinking. The \$45 million will assist in furthering beneficial climate protection efforts, including cover crops, conservation plantings, hedgerows, whole orchard recycling and more.

Through regenerative practices to sequester carbon and enrich the biodiversity of orchards and soil, the funding is a win-win for agriculture and our climate.

A hearty congratulations to *Blue Diamond* for this funding award that will make a difference by expanding climate smart orchard practices.

These are a few examples of infinite thinking that demonstrate direct links to our efforts being positive for agriculture, people, and the environment.

For Blue Diamond Growers, producing and processing a healthy and delicious product certainly has a positive effect on California. The jobs, economic contributions, climate-friendly agricultural practices, and the fact you produce a locally grown, nutritious commodity is significant information for the people of California to understand.

As we head into 2023, we will face headwinds as we have in the past and there is a vast need to educate legislators and regulators on challenging state policy issues. Ag Council fully recognizes we have a great deal of work in front of us.

We must be bold, collaborative, and innovative and show elected officials and leaders in Sacramento that what matters to agriculture also matters to everyone — a stable water supply, clean air, reducing climate impacts, and a locally grown food supply.

Blue Diamond is a huge part of our efforts as an advocacy-based trade association. Your Government Affairs team, staff, and growers are some of the most actively engaged and supportive of our work. Ag Council recognizes and appreciates that fact.

Thank you for your partnership in this ongoing, longterm journey to tell our story and bring about a greater understanding of agriculture's role among public officials in the Golden State and how this role benefits all Californians



Emily Rooney, President, Ag Council

SAVE THE DATE

Ag Council's 104th Annual Meeting

March 29-31, 2023

Portola Hotel & Spa in Monterey

Details and registration will be available via Ag Council's newsletter and on our website by late December at:

www.agcouncil.org

GROWER SEMINARS SUMMARIES

Navel Orangeworm and the Neighborhood Mating Disruption

Almond growers recognize that Navel Orangeworm, NOW, is their traditional arch enemy. NOW is the prime cause of quality challenges they face each year, driving significant costs for effective management and control and revenue losses if not controlled.

While NOW is familiar to all growers having been studied for decades, growers also never miss an opportunity to reacquaint themselves with tried-and-true methods of control and learn about the latest techniques that can provide an edge against NOW losses. Blue Diamond members gathered to hear from Dr. Joel Siegel, Research Entomologist with the USDA Agricultural Research Service in Parlier, California, and Dr. Jhalendra Rijal, Area Integrated Pest Management Advisor with the University of California Cooperative Extension at the 2022 Annual Meeting.



Dr. Siegel

Dr. Siegel noted that given NOW is active within the orchards for nine months of the year, there are several opportunities to effectively impact the NOW population. Orchard sanitation, removal, and destruction of mummy nuts where NOW larvae over-winter remains the foundation of successful NOW management. Siegel also noted that NOW moths emerge from the over-wintering mummies in late April and return to lay eggs on the mummies

again where they are more exposed to control measures. Treatment with an insecticide with adequate residual activity can help to reduce the population of larvae hatching from eggs deposited on the mummies.

Research has shown that the NOW generational cycle is influenced by temperature and by the quality of material the larvae feed on. The first generation of the year growing within the mummy almonds is completed in

approximately 1,000 degree-days, the second generation feeding on hull split almonds can be completed in 700 degree-days and NOW feeding on pistachios can be completed in 500 degree-days.

According to Dr. Siegel, hull split treatments to control NOW must be timed to the hull split. Larvae emerging from eggs deposited on unsplit almonds do not survive to cause damage to the kernel. Siegel also emphasized several points critical for effective control:

- Hull split occurs first in the tops of the trees. Thus, growers should monitor the tops of the trees for proper timing.
- 2. Coverage is critical. Treat every row. Do not make every-other-row applications.
- 3. Treatments should be made at night. Adult NOW are nocturnal insects. Nighttime treatments can provide the best control.
- Hull split treatments should be completed with five days.
- 5. Aerial application of hull split treatments can provide effective control where ground applications are unable to reach high enough into the canopy.

Dr. Rijal reinforced critical points of control noted by Dr. Siegel and reviewed the introduction of Mating Disruption, MD, as an effective means of NOW management. Using devices to release pheromones within the orchard during the growing season, growers can effectively disrupt the male NOW moth's ability to locate and mate with females, reducing the population of larvae and the potential for damage to the crop. Dr. Rijal pointed out that MD is not a replacement of other traditional control measures. However, growers employing MD have been able to reduce losses due to NOW damage by nearly 50% and reduce the amount of insecticides applied by eliminating one hull split treatment. Growers with orchards under higher

NOW pressure that normally require two or three hull split treatments for effective control may be able to eliminate one application while also reducing NOW damage.



Dr. Rijal

Dr. Rijal noted that while mating disruption has been proven effective in orchards of 40 acres and larger, smaller orchards have proven to be more problematic. This has inspired the creation of a pilot project designed to prove MD effectiveness in smaller orchards by creating blocks of sufficient size for effective MD implementation.

Implemented as a voluntary pilot project in an area of Stanislaus County containing

a range of orchards between five and 40 acres, growers within the project area self-identify their orchards and their desire to implement MD on the project's website map. Parcels containing almonds or walnuts are both eligible to participate, given that both crops can harbor NOW. When adjacent orchards enroll in the program creating a sufficient number of contiguous acres for effective MD, the landowners are notified of their neighbor's desire to participate. The participating growers are then free to work through their Pest Control Advisors to successfully implement MD within their orchards. Growers within the project area have self-identified nearly 150 parcels in which they are already employing or wish to employ Mating Disruption in the 2023 growing season. It is anticipated that the program will be open to all growers statewide at the end of the pilot project.

















'Brown Spot' Issue in Almonds: Potential Causes and Solutions

The annual meeting's second pest management session covered a relatively new challenge facing almond growers, Brown Spot, produced by the feeding of several species of Plant Bugs. Mel Machado, VP of Member Relations noted that for several years, Blue Diamond had been identifying Brown Spot damage in almonds from orchards that growers and their Pest Control Advisors had not observed Leaf-Footed Plant Bugs, LFPB, the "traditional" cause of Brown Spot. Using data from Blue Diamond's delivery testing process, Machado documented the increase in Brown Spot and gum, which is associated with Brown Spot observed in recent years. He also noted that in extreme cases, Brown Spot has created reject levels in excess of 30%, rendering the deliveries as Oil Stock with no value.

Focusing on work conducted by Dr. Rijal, several species of Stink Bugs, including the newly invasive Brown Marmorated Stink Bug, BMSB, have been identified as the cause of Brown Spot. Several of the Stink Bug species have established residence within almond orchards and have become an increasing source of crop damage and financial loss. Increasing damage caused by Plant Bugs in recent years is thought to the be the result of reduced usage of broad-spectrum control measures in favor of more finely targeted materials aimed at other orchard pests.

Plant Bugs damage almonds through their feeding on the nut, probing deep into the kernel using their piercing-sucking mouthparts. If probed prior to kernel solidification and hardening, almonds typically fall from the tree.

This early season feeding can be quite dramatic with a significant proportion of the crop cast to the ground. After kernel hardening, the nuts are retained by the tree and the damage typically manifests itself as sunken lesion and/or brown discoloration on the kernel, rendering it inedible, adding to the level of rejects in the crop. The number of gummy nuts in the crop further increases the losses.

Dr. Rijal noted that there are currently no economic thresholds established for control and no effective traps

are available for native Stink Bug, the typically observed Green or Brown Stink Bugs and LFPB. While growers and PCA's may use beat trays, knocking the insects from the trees onto pans or trays to detect their presence and search for egg masses on the leaves. For many the first sign of the insect's presence is the gummy exudate emitting from the feeding puncture on the hulls. Plant bugs also exhibit a varietal preference, which growers may take advantage of when surveying their orchards. LFPB is known to strike Sonora, Price, Aldrich, and Fritz varieties first. LFPB is also very attracted to pomegranate and junipers in the farmstead landscape and BMSB is very attracted to Tree of Heaven. It was noted that while Stink Bugs appear to have taken up residence within orchards, growers should also monitor the edges of orchards to detect Plant Bugs that may be moving into the orchards from other croplands. Lures and traps have been developed for BMSB and are available for grower use. Parasitic wasps have also been identified that lay their eggs within the Stink Bug and BMSB eggs. However, Dr. Rijal noted that the egg parasites cannot control juvenile or adult Plant Bugs and that effective biological tools are still far in the future.

Blue Diamond Growers is proud to assist the member/grower community improve the quality of their crop through vehicles such as the Annual Meeting Seminars. Through cooperative efforts between growers, researchers, and Blue Diamond staff, reducing reject levels within the crop enhances grower returns, reduces costs, and improves the quality of almond delivered to customers around the world.

Dr. Rijal presenting



Annual Meeting Synopsis (Sustainability)



Dr. Dan Sonke presenting

The sustainability session for the 112th Annual Meeting highlighted Blue Diamond Growers' Orchard Stewardship Incentive Program (OSIP). OSIP consists of grower financial incentives aimed at grower assessment against best agriculture sustainability practices, encouraging continual education and improving farming practices. In year two of the program, crop year 2021, 40% of all Blue Diamond acreage participated in OSIP, paying over \$1.74 million to the participants.

This means that *Blue Diamond* has the largest amount of almond acreage in a sustainability program of any company in the world. With the Almond Board of California adjusting the California Almond Stewardship Platform (CASP), we will need to update our program to continue to work seamlessly

with CASP. These changes are aimed at making CASP and OSIP more efficient and effective. For crop year 2022, there are two tiers within OSIP.

Blue Diamond also celebrates the release of the inaugural sustainability report. This report, available online at www.bluediamond.com/sustainability, showcases the work of our growers and of the cooperative within key areas. It focuses on sustainable agriculture, water stewardship, biodiversity and pollinators, climate and energy, our people, and our communities. It shares the stories and data behind our years of stewardship. We also celebrated the recent announcement of Blue Diamond's \$45 million award through the USDA's Partnerships for Climate-Smart Commodities grant. This grant will support the cooperative's ongoing efforts to help our growers implement climate-smart practices and tie the resulting benefits to the marketplace. Details of the grant are being worked through with USDA; funding is expected to be available to growers in 2023. •



Grower Engagement Panel Annual Meeting 2022



L to R: Ben Goudie, Steve Van Duyn, Dan Clendenin, John Monroe, Kelli Evans, and Kent Stenderup

The Annual Meeting grower engagement panel was moderated by Ben Goudie, Membership Director for the Northern Region to discuss the opportunities for members to involve themselves as advocates for the co-op. The panel consisted of board members, John Monroe (District 2), Dale Van Groningen (District 3), Steve Van Duyn (District 5), and Kent Stenderup (District 5) as well as Members Kelli Evans (District 2), and Dan Clendenin (District 7).

The panel discussed involvement in the *Blue Diamond*Leadership Program. Formerly named the "Young
Leadership Program," the re-branded "Leadership Program"
encourages members of all ages and experience levels to
participate since it serves as a developer of co-op leaders.
In fact, four current members of the board of directors are
graduates of the Program.

Grower Liaison Committees (GLC) and the Advisory Committee were next on the docket. Dan Clendenin stated he has served several times on both committees and that he enjoys the committee-driven conversations with *Blue Diamond* executives and operational leaders.

Monroe and Van Duyn shared their experiences as members of the *Blue Diamond* board of directors. Monroe provided

key considerations one must take prior to running. Board members spend at least 30 days a year engaged in board business. Van Duyn shared that this is in addition to the extensive pre-reading and studying of necessary materials.

Stenderup and Evans gave insight into *Blue Diamond's* interaction with the Almond Board of California and how to get involved on an Almond Board committee. Stenderup, who is a past chairman of the Almond Board, said that there is always a way to serve as an Almond Board committee member no matter your background. Evans highlighted her path, as she was recently elected as an Almond Board Alternate.

Support for the Almond Alliance is critical since it conducts industry level advocacy on both the state and federal levels. Blue Diamond also supports PAC by offering in-orchard legislator tours, something Clendenin has hosted many times. He expressed the cruciality of PAC's orchard visits so they may witness the challenges almond farmers face.

Remember, no matter your experience or interest level, you can and should get involved with *Blue Diamond*. Member engagement is a key factor in *Blue Diamond*'s success.

Government Affairs Panel Session

This seminar, "Leading Through the Supply Chain Crisis," featured Blue Diamond's Vice President of Global Supply Chain, Steve Schult, Director of Government Relations Alicia Rockwell and Almond Alliance's President, Aubrey Bettencourt. The session provided an in-depth look at how Blue Diamond and the Almond Alliance led the industry in finding solutions to manage the supply chain crisis. The panel highlighted a comprehensive strategy, which included a strategic communications plan, coordinated advocacy strategy, and a broad coalition of partners, to ship almonds around the world amidst the massive disruption. Through the efforts by the cooperative and the Almond Alliance, the industry has found new supply chain solutions and options, not only for the almond industry, but also California agriculture. •



L to R: Alicia Rockwell, Steve Schult, and Aubrey Bettencourt









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ACT FASTER AND WITH MORE FORCE THAN EVER BEFORE.

The optimized, low use rate product concentration of Altacor® eVo insect control is optimized to provide growers, retailers, PCAs and consultants with less product and packing to handle, store and dispose of. Plus, its unique formulation offers rapid protection with a favorable environmental profile and low impact on bees and other pollinators*. In line with integrated pest management and good agricultural practices, insecticide applications should be made when pollinators are not foraging to avoid unnecessary exposure.

ALTAC	eVo	ALTACOR (SECTION 1997)				
FI. oz./A	Lbs. ai/A	FI. oz./A	Lbs. ai/A			
1.1	0.047	2.0	0.044			
1.3	0.055	2.5	0.055			
1.5	0.066	3.0	0.066			
2.2	0.098	4.5	0.099			

STRENGTHEN YOUR IPM PROGRAM.

Costly Lepidopteran pests don't stand a chance against your IPM program when you rely on FMC.

The introduction of highly concentrated Altacor eVo insect control powered by Rynaxypyr® active gives you a dynamic duo of options when it comes to your IPM program.



START SMART ON TREE NUTS.

Avaunt® eVo insect control provides rapid activity and residual control of codling moth, navel orangeworm, and peach twig borer with a unique mode of action that has a low impact on beneficial insects with no cross-resistance to other insecticides. That makes it a smart mummy spray choice.



FOLLOW UP SMARTER.

At 1-5% hull split, use Altacor eVo insect control back to back within 10-14 days at 2.2 oz./A. This optimized high-load formulation offers the same pest spectrum as Altacor insect control, but allows growers, retailers, PCAs and consultants to handle, store and dispose of less product and packaging.





SUSTAINABLY SPEAKING, WITH DR. DAN

Blue Diamond Growers Climate-Smart Commodities Grant from the USDA





As was reported in the last issue of Almond Facts, on September 14 the USDA announced they will be awarding Blue Diamond Growers up to \$45 million from the Partnerships for Climate-Smart Commodities grant fund. At the urging of our Government and Public Relations team, the Sustainability Program and Member Relations assembled a team of partners to write and submit a proposal in May of this year. The proposal was one of over 1,050 submitted, and one of 70 selected for funding — but also one of a handful that were funded to address specialty crops. We will use these funds to support implementation of specific "climate-smart" practices (which are designed to combat climate change) on Blue Diamond member orchards.

Besides the USDA focus on aiding farmers in adopting practices, a second requirement of proposals was that they must connect these climate-smart practices to markets. As you've read previously in this column, using our sustainability activities to drive business growth is a focus of our strategy.

Near the end of October, the USDA began a contracting process with *Blue Diamond* outlining the deliverables and activities eligible for funding under the grant. Once that is finished, *Blue Diamond* will have to hire coordinators and set up the program structure. Members and others likely have questions. While we are still very early in the process, we provide some answers here.

Who is eligible to receive the grant funding?

Blue Diamond grower members are eligible to receive the grant funding. Members will be required to enroll in OSIP (our Orchard Stewardship Incentive Program) and participate in CASP (the California Almond Stewardship Platform from the Almond Board of California) to receive funding.

What does the funding pay for?

The grant funds growers for implementing one or more of the following practices:

- Annual cover cropping
- Conservation plantings (i.e. permanent cover crops outside the orchard/bee pastures)
- Permanent hedgerow plantings (pollinator-friendly trees and shrubs)
- Whole orchard recycling

Some of the funding of these practices will be through our partners (for example, to provide things like cover crop seed direct to growers, as opposed to growers being paid to go out and purchase seed).

How much will growers get paid?

There are many details to be worked out yet. The \$45 million awarded was less than our proposal request, so our budgets must be reconfigured and adjusted accordingly. Also, annual cover cropping, conservation plantings, and permanent hedgerows will be managed through our partners Project Apis m. and Pollinator Partnership, who will be funded to provide growers seed, transplants, planting assistance, advice, and more. This reduces or eliminates upfront costs to the grower and enables technical assistance beyond what Blue Diamond can provide. The goal is to cover a significant portion of implementing practices for our members, but it may not add up to 100% of the costs.

What value is this to Blue **Diamond Growers?**

We already have customers asking for us to share ideas for reducing the carbon footprint of almonds they purchase. These are companies with commitments for lowering their carbon footprint for voluntary reasons, often due to pressures of public disclosure requirements. This program will give us the data and almond supply to meet these demands more readily than other suppliers. Our goal for the project is to turn this customer interest into financial value to our members, either through premium almond prices, value added service (such as carbon credits), or other sales benefits (e.g. increased volumes and preferential relationships with customers).

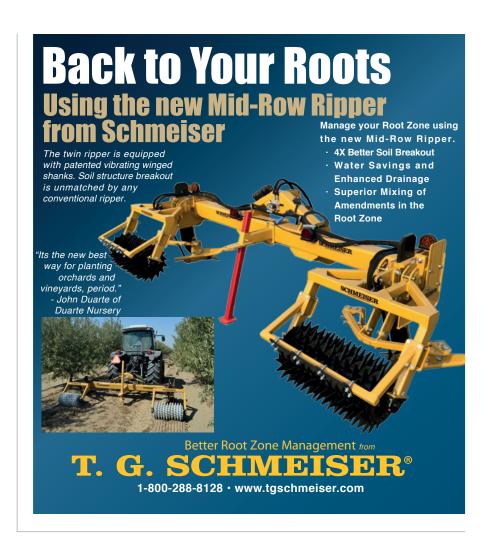
Will this replace the incentive paid from OSIP?

No, this does not replace the OSIP incentive payment. Any grant funding is above and beyond the OSIP incentive

payment. In fact, the hope is that by funding the pollinatorrelated activities through the grant, we will enable growers who might not have otherwise been eligible to reach Triple Diamond OSIP level. That way, more members can get the highest OSIP returns on their almonds. The grant will also enable us to explore additional OSIP options which would have financial value to members.

How will funds be dispersed?

Per USDA requirements, the funding is for reimbursement of completed activities. Some of the reimbursement will go to Project Apis m. and Pollinator Partnership for seed and transplants provided to the growers. One objective is to pay for the costs of establishing pollinator habitat to help growers get Bee Friendly Farming certified and therefore become eligible for higher OSIP funding.



How long is the program?

The funding is for a five-year period. Depending on the timing of signing the agreement with the USDA, this likely will cover four full seasons and parts of a fifth.

When can I begin receiving the grant funding?

This has not been determined yet. Blue Diamond will be working over the course of the next year to set up the internal process and support to manage the grant program. Once set up and under contract with the USDA, Blue Diamond will communicate to our grower owners when funding is available. We will likely launch in conjunction with OSIP in November of 2023. Remember that Blue Diamond has five years to fund the activities.

Can I be reimbursed for climate-smart activities done before grant funding is available?

The grant does NOT allow for retroactive payments, only activities that occur after Blue Diamond has formally launched the program (likely in 2023). This has been made clear by the USDA multiple times already. We will send out communication when grant funding becomes available.

If I cover cropped last year, can I get paid for a cover crop put in after the grant program launches?

It's not clear at this time. We will be requesting that this be eligible in our negotiations.

If another state or federal program pays me for one of the four activities, can I also get payment through the BDG/USDA program?

It's not clear at this time. We will be requesting clarification in our USDA negotiations.

How will I receive the grant funding?

The USDA grant is cost-reimbursable, meaning that growers will be reimbursed after the activity is performed and proof of the activity is provided. Annual cover cropping, conservation plantings, and permanent hedgerows will be managed through our partners Project Apis m. and Pollinator Partnership, who will be funded to provide growers with

seed, transplants, planting assistance, advice, and more. For Whole Orchard Recycling, growers will have to manage the process with their orchard removal company, and the payment will likely have a flat reimbursement rate per acre, yet to be defined.

If I choose to plant conservation plantings or hedgerows, do these have to be right next to my orchard to qualify for reimbursement?

No, but they do have to be within the distance limits that qualify for Bee Friendly Farming, which is no more than two miles from the orchard. Keep in mind that the closer the plantings are to the orchard, the more benefits they will bring to the bees that work your orchard during bloom. The farther away, the more time the bees may spend flying outside the orchard instead of working your crop.

Will the grant cause growers to pull their orchards out early and diminish BDG supply?

The grant reimburses costs. It does not create income for growers. Keeping their orchards in production will likely still be the more profitable option, rather than pulling an orchard out early.

Can contracted growers use the grant on non-Blue Diamond contracted orchards?

No. The project requires a marketing component, so orchards outside of our supply would not meet the requirements for the project.

Could a grower do Whole Orchard Recycling (WOR) of a walnut or prune orchard prior to replanting with almonds and get reimbursed?

No. To the best of our knowledge, only almond WOR has an associated carbon model and is recognized by the USDA at this time. As the USDA carbon calculation is required in the grant, other WOR options are not eligible.

Cool Farm Tool was mentioned in the grant announcement. What is their role in the project?

We have designated money in the project to enhance a carbon calculator tool to better account for carbon reductions in almonds. This may be Cool Farm Tool, which currently does not have an almondspecific module. However, we have freedom to pursue a different tool if Cool Farm Tool doesn't meet our market requirements as we put the project together.

Will the project generate carbon credits for members to sell?

Not likely. While the project may generate carbon credits (this is still to be determined), if a member sells credits to an entity other than Blue Diamond (or our customers through Blue Diamond), then those credits are considered no longer part of Blue Diamond's supply chain. Thus, they don't allow us to enhance our sales with customers by helping them to

reduce their carbon emissions or environmental risk. We want to find a value for the grower that includes keeping the carbon credits within the cooperative. Members may be asked to sign an affidavit confirming that they did not sell credits for activities generated in the project to avoid accusations of financial fraud for all parties involved.

Will this project generate extra work for our regional managers?

Some, yes, but the proposal also included a budget to hire staff for the team to alleviate some of the load which might otherwise be carried by the regional managers. We hope the regional managers can help identify and recruit candidates, but also have someone on staff to hand candidates off to when it comes time to start applications.

If you have questions which aren't answered in this column, feel free to contact your regional manager and we'll be sure to get back to you with an answer.





Dr. Dan Sonke, Director of Sustainability, Blue Diamond Growers

THE BEE BOX

A Risk Averse and Profitable Pollination Portfolio Best Management Practices for Our Bees and Trees During Bloom

Like the majority of the *Blue Diamond Growers* membership, our family has been growing almonds for generations. Much like your family, I am sure, we take a deep breath every year before talking to our beekeeper. Why? Because it is a huge financial investment. Indeed, the Almond Board of California has recently shown that the cost of pollination services can constitute anywhere from 15%–20% of the overall cultural costs budget for almond production. We pay for pollination services, have standards for frame counts, and know that this investment will pay dividends. But just like any investment, it must be managed well to be financially sound. In this article, I liken our pollination investment to either a sound investment portfolio, or, one that hoists risk after risk with actions that can and do jeopardize it.





Left: Honey bee colonies on the road to California. Each semi-truck carries around 400 colonies, often through harsh winter weather. Right: Unloading bees into the orchard. Photo Credits: S. Yaddaw for Project Apis m.

Keep in mind that beekeepers are making a major investment, too, by bringing bees from around the country to the almonds. Almond pollination for a beekeeper can set the stage financially for the rest of the year. It can also make or break the colonies from a bee health and productivity perspective. For example, if a beekeeper arrives pre-bloom and there is no natural forage present on the landscape, they have to purchase feed at high cost. This is an attempt to "kickstart" the colonies to begin building brood.² Keep in mind that after winter conditions, bees haven't seen forage of any type, even a single flower, for months. Then we are asking them to run a marathon. Talk to any beekeeper and they will tell you, natural forage in and around the orchard is far more beneficial to start this brood building process than any supplement they can give in a hive.

¹ H. Lee, A. Champetier, et. al. Bee-conomics Revisited: A Decade of New Data Is Consistent with the Market Hypothesis.In Giannini Foundation of Agricultural Economics, University of California Vol. 20, No. 5 May/June 2017, pg.3. See also, recent cost studies here: https://coststudies.ucdavis.edu/en/current/commodity/almonds/.

² Ever wonder why pollination service costs continues to rise? There are many legitimate reasons. One of these is the addition of more and more supplemental feed. With more loss of natural forage on California's landscape, beekeepers had to keep adding.

Pollination Contracts: Preserving Expectations and Good Relationships

Under no circumstance would an investment advisor tell us to spend thousands of dollars, perhaps hundreds of thousands, on an investment asset without a contract. Having no contract invites risk. The contract establishes formal expectations on both sides of the agreement, giving clear guidance on the outlook of the pollination season at hand. Additionally, I believe a contract solidifies good will and good relationships. The contract presents an opportunity to discuss all the necessary factors going into pollination for both parties:

- It designates where the hives are going to be placed and why;
- It establishes when the beekeeper can or should move in and at what stage of bloom;
- → It communicates the clear expectations of frame count and allows for parameters to be given on inspection of colony strength (within this clause too, a contract can establish rectification of a weak hive and the procedure grower and beekeeper can follow);
- → It lays out the costs; and
- → Perhaps most importantly, especially for the beekeeper, it clearly communicates what happens if and when sprays are to take place while colonies are present.

Of course, these are just a few of the factors a contract can cover, and each will be different depending on the operation and the situation. For an example Pollination Contract, see Project Apis m.'s here: www.projectapism.org/uploads/1/0/5/7/105706229/pollination-contract-template.pdf.



Communicate, Communicate: The "Chain" of Pollination Players

The Almond Board of California has created a great illustration for understanding the somewhat complex communication channels during pollination with all the various players involved. They call it the pollination "Communication Chain," and for good reason. The idea here is that there are several necessary participants that must be in constant communication during pollination. When the chain is strong and connected, our pollination investment is sound, diversified, and paying dividends for all. When even one link breaks, the pollination investment is compromised and becomes riskier. In all ways, almond farmers and beekeepers want a well-balanced, diversified portfolio for their pollination investment, being as risk averse as possible. To do this, the chain must be strong and connected at all times. Here are the links in the chain:

Beekeeper → Bee Broker → Owner/Lessee → Farm Manager → PCA → Applicator

Sprays: Protecting Our Crop and Our Pollination Investment

Just like us, beekeepers take a big, deep breath every time they place bees on our property. Why? Because they, too, are making an investment, and it has huge risks that are almost completely out of their control. Every time they pollinate, they are entrusting their bees, the engine of their business, to the grower.

It has become abundantly clear through scientific research that tank mixing can be disastrously hazardous to both adult bees and developing bee larvae. Indeed, tank mixing, and likely, adding adjuvants ³, is the bee and investment killer. If we tank mix, we just tanked our pollination investment, and, killed the investment the beekeeper made in us and our operations.

One of the most outstanding things I have ever heard about honey bees is their inability to fly if water, or any water-type watery substance, is applied to their wings. It is possible for the bees to fly again once the wings are dry from water, but any surfactant- or oil-like material is completely inhibiting. In other words, if we're spraying while they're flying, bees are probably dying — we could literally be spraying our investment to death! We spray at night. No exceptions. Better coverage, better bee activity in the day, better for all parties.

The Proper Habitat: A Hedge Toward Strengthening Our Investment Year-Over-Year

Simply put, providing habitat and fresh water is akin to starting an investment at the start of a bull market. These actions provide a margin of safety and a return on investment well beyond not taking risky actions (tank mixing, spraying bees in the day, adjuvants). This might sound like a stretch but let me explain.

³ See, for example, the research of Diana Cox-Foster's, et. al.: Chronic exposure to an agricultural spray adjuvant and honey bee pathogen causes synergistic mortality in larval honey bees (Apis mellifera) J Fine, C Mullin, D Cox-Foster. 2016 International Congress of Entomology. Pollinators as keystones of agriculture and natural ecosystems: Impact of organosilicone spray adjuvants on their health and reproduction. D Cox-Foster, E Klinger, W Doucette. ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY 258. Altered Feeding Behavior and Viral Detection in Honey Bees Exposed to Organosilicone. M Thompson, E Klinger, K Kapheim, D Cox-Foster. An inert pesticide adjuvant synergizes viral pathogenicity and mortality in honey bee larvae. JD Fine, DL Cox-Foster, CA Mullin. Scientific reports 7 (1), 1-9. Impacts of honey bee viruses, an agricultural adjuvant, and their interaction on blue orchard bee (Osmia lignaria) larval development. N Boyle, MKF Williams, E Klinger, D Cox-Foster, T Pitts-Singer. Entomology 2019.

When natural forage and nectar are present prior to almond bloom when the bees are delivered, this *naturally* jumpstarts something we call a positive feedback loop within the colony. Scouts are sent out to survey the landscape and ultimately to report back to the colony with their findings. If there is an abundance of resources, the scout does a dance to other bees, indicating the available forage and its location. From there, if there is an abundance, the queen starts laying feverishly.

As pollen and nectar increase, and foraging bees take flight to harvest the resources, this triggers even more of the colony to get out and pollinate and shows the queen that she can keep laying at a fast, healthy pace. On and on it goes, like compounding interest on a good investment!



The positive feedback loop representing optimal conditions for bees in almonds.

How do we provide natural forage? Cover crops, both annual in-row cover, and, on the perimeter of the field, with hedgerows or perennial cover crop designed to bloom at critical times. In addition to food, bees also forage for water. BDG's Water for Bees is a simply brilliant program that growers have enthusiastically adopted to ensure ready sources of fresh water. Like us, bees can survive, theoretically, quite some time without the proper diet. However, without clean drinking water on a daily basis, we shut down. So do bees. The closer that water and food is to our blooming orchard, the less they have to travel for that resource, the more time they spend pollinating. It's really that simple.



Fan-Jets will help your pre-emergents penetrate the soil.

Fan-Jets will allow you to push salts

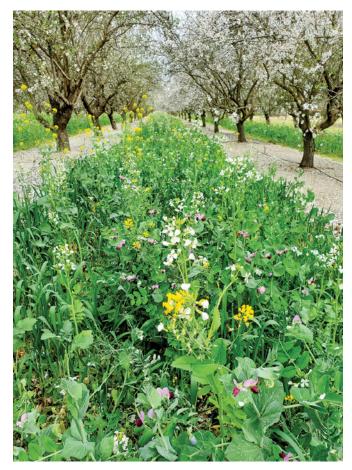
away from the root zone.





IN YOUR ORCHARD

Remember that when providing fresh water for bees it is imperative to "keep it fresh!" Thus, if sprays are necessary, remove or cover adequately (our family opts for removing from the location of the spray to eliminate the possibility something like the cover blowing off during application.)



A lush cover crop planted with PAm's Seeds for Bees Soil Builder Mix, timed well to the almond bloom.



A bucket of fresh Water for Bees provided to growers by Blue Diamond.

Seeds for Bees encourages the use of cover crops to increase the density, diversity, and duration of bee forage in California orchards, farms, and vineyards, while improving soil health. First year Seeds for Bees enrollees are eligible for a \$2,500 discount off their total seed purchase. Second year enrollees are eligible for a \$1,500 discount off their total seed purchase. If you want to learn more about Seeds for Bees and planting cover crops in your orchards, check out our *NEW* Quick-Guide where you can access resources, enrollment information, and technical guidance, at: bit.ly/sfb-quick-guide, or visit ProjectApism.org/Seeds-For-Bees.

Almond growers and beekeepers are both in the thick of some of the hardest times either industry has faced. What we need now are strong partnerships to keep our investments healthy and profitable, especially between beekeepers and almond producers. Whatever we want to say about where almonds should be grown now or in the future, or how much or how little, one thing remains true: Apis mellifera has been pollinating Prunus dulcis for millennia. That relationship is resilient and should continue to bring nourishment to people around the world, including to the beekeepers and almond producers!

We, as almond producers, are first in line after the bees wake up. We are also proud to say that we are the largest beepollinated crop in the world. This means we contribute directly to Apis m.'s ability to decline or to thrive, as we have for a very long time. With clear communication, contracts, and smart and strategic programs, may beekeepers and almond growers work together to protect each other's investments for years to come. Let's (continue to) get to work. ◆



Rory Crowley,
Director of
Habitat Programs,
Project Apis m.
Rory@ProjectApism.org



TIME TO CONSIDER

Did you know that there are over 400 different recognized phobias? Now, there are the common phobias like arachnophobia (the fear of spiders) and claustrophobia (the fear of tight spaces). There are even odd ball ones like coulrophobia, which is the fear of clowns, and I must admit clowns creep me out! The one that I found humorous was hippopotomonstrosesquippedaliophobia...the fear of long words. No, I am not joking — they used a long word as the designation for the fear of long words. People may have a few phobias, but I believe growers all share one in common: lepidopterophobia! What is that, exactly? lepidopterophobia is the fear of caterpillars, or in other words, Navel Orangeworm! In a scary movie this would be where the lights flicker, lightning would strike, and you would hear the laugh of an evil genius. Luckily, we're not in a movie. Today we are here to talk about how we can try to minimize this pest, and how to get rid of this phobia.

Now I'm sure you have all heard this before, but I am going to say it again: Navel Orangeworm (NOW) control begins with sanitation. Removing nuts that did not come off during shaking for harvest, also known as mummies, greatly reduces the pest population. It is an accepted industry standard to have no more than two mummies per tree, though some in the southern San Joaquin Valley target one mummy per tree. There are multiple ways you can have these mummy nuts removed, but the most popular by far is by doing a winter shake. Winter shaking can be done throughout the dormant season and is most successful when conditions are right. Foggy conditions are usually considered the best when removing mummy nuts. The moisture from the fog and dew is absorbed by the hull of the nut, making it heavier and softening the connection, so when shaking is done, they easily detach from the tree. Moisture is the key to success but can also be an issue. The lack of it can lead to postponing the shake and too much of it can make it difficult to get back in the field. Growers typically try to have mummies removed from November to early January.

What happens if conditions lead a grower to being a little late to have them removed? Wes Asai, former University of California farm advisor, wrote an article for West Coast Nut titled "Does Winter Shaking Reduce Yield Potential in Almonds?" where he discusses research trials. He tested if there were any effects of a "late" winter shake on almond yields in the subsequent crop year. Asai completed the trials in 2018 and 2019 at two different sites each year. In both trials a control was set up where the control received a normally timed winter shake in December and January. The two "late" shake dates were completed the first and second week of February. Now, we know that in February the buds are starting to push, and bloom could be imminent depending on chill hours, so of course there was some bud loss from the "late" shaking. Asai states, "On the February 6 date, an average of 6,784 buds per tree were removed. On the February 11 shake date an average of 9,626 buds per tree were removed." This may sound alarming, but keep in mind that usually only 20%-30% of almond blossoms will "set" and ultimately produce an almond. The results of Asai's trial showed that there was no effect on yield in either of the "late" shake timings. Shaking in February is not preferred, and Asai agrees, but

Shaking in February is not preferred, and Asai agrees, but he does state that "...this does demonstrate that if favorable shaking conditions (rain and fog/dew) do not occur until later in dormancy, there is still an opportunity to shake mummy nuts with some bud drop and not negatively affect yields." Studies like the one Asai completed should give confidence that there is time to get in the field and get the mummies on the ground.

Shaking is not the only method of removing mummies. In younger orchards, poling is done to remove the harboring homes of NOW. It is a high labor exercise, but in trees that may be too young to shake it is the most effective. In discussing ways to remove mummies I just mentioned the simplest method — take a stick or pole and knock the mummy out of the tree.

Now I am going to talk about where the industry could be headed. There is a company called InsightTRAC that has developed a robotic rover that will shoot mummies out of the trees. As you read that, I know there must be some readers thinking "that's absurd!" while there are others thinking "a tank with guns on top of it in my almond orchard...awesome!" It is new, but they may be showing up on California farms this winter and the technology is especially interesting. The rover travels down the middle of the row and scans the trees every few feet. It then identifies the mummy nuts and plots the quickest path to remove those nuts. How does it remove them? I wasn't kidding when I said it shoots them out of the tree! The rover is equipped with turrets that fire biodegradable pellets. Since the rover is robotic it can also operate 24/7. It may sound farfetched but with increased labor costs and other restrictions, California growers will have to continue to look at these new ideas to adapt and grow.

So, I winter shook, what do I do now? Getting the mummies out of the tree is the most important thing, but if you stop there it's like stopping on the 1-yard line. In wet winters, NOW mortality is higher. According to the UC Davis IPM website, "Moist orchard floor conditions provided by winter-resident vegetation and rain will enhance mortality of Navel Orangeworms in mummy nuts that have fallen from trees in years with adequate rainfall." If only we could be so lucky to experience a winter with some rainfall, but the reality is that it has been dry! So, what do you do in dry years? Mummy removal and destruction becomes even more vital. Since you may not have the added benefit that moisture brings, you will have to focus on fully destroying the mummy nuts. This is best done by **mowing**.



IN YOUR ORCHARD

Mowing exposes the overwintering larvae to the environment, which aids in the mortality of the pest. Breaking up the mummy nuts exposes the larvae to predators like birds, and the cold winter weather. Without the warmth of a fully intact almond, the larvae will not survive. How do you prepare for a successful destruction of mummy nuts? It starts with sweeping or blowing the mummy nuts to the center of the row. Winter sweeping also cleans and prepares the orchard floor for a successful application of pre-emergent herbicides. Two benefits from one action. Speed is the most important factor when it comes to mowing mummy nuts. If you are traveling too fast, the flail mower will just spread the mummies back to where they were swept from. You must travel at a slow enough speed that will fully break up the nuts to be successful

The past year has been a difficult one with high input prices. Many may be looking at how to reduce their budget, and some will consider skipping winter sanitation. I hope reading this will help you decide that winter sanitation is a necessity.

	Comparative Values at Varying Reject Levels												
		Yield	2,400						_				
Total Meat Pounds		Price RJS% RJS Wt	\$ 1.50 Field & Sheller Loss	TGM B	Base		Premium Total Value	Loss	Incremental	Value/TGM		Opportunity Loss	
	0,000,000,000				R	Rate	Amount	5,5,500 5,00,000	2770.000.7007	Loss			
2,400	0.00%	-		2,400	\$3,600.00	\$0.185	\$444.00	\$4,044.00			\$	1.685	\$0.000
2,400	1.00%	24	24	2,352	\$3,528.00	\$0.175	\$411.60	\$3,939.60	(\$104.40)		\$	1.675	(\$0.044)
2,400	2.00%	48	48	2,304	\$3,456.00	\$0.115	\$264.96	\$3,720.96	(\$323.04)	(\$218.64)	\$	1.615	(\$0.135)
2,400	3.00%	72	72	2,256	\$3,384.00	\$0.050	\$112.80	\$3,496.80	(\$547.20)	(\$224.16)	\$	1.550	(\$0.228)
2,400	4.00%	96	96	2,208	\$3,312.00	\$0.045	\$99.36	\$3,411.36	(\$632.64)	(\$85.44)	\$	1.545	(\$0.264)
2,400	5.00%	120	120	2,160	\$3,240.00	\$0.035	\$75.60	\$3,315.60	(\$728.40)	(\$95.76)	\$	1.535	(\$0.304)
2,400	6.00%	144	144	2,112	\$3,168.00	\$0.025	\$52.80	\$3,220.80	(\$823.20)	(\$94.80)	\$	1.525	(\$0.343)
2,400	7.00%	168	168	2,064	\$3,096.00	\$0.015	\$30.96	\$3,126.96	(\$917.04)	(\$93.84)	\$	1.515	(\$0.382)
2,400	8.00%	192	192	2,016	\$3,024.00	\$0.005	\$10.08	\$3,034.08	(\$1,009.92)	(\$92.88)	\$	1.505	(\$0.421)
2,400	9.00%	216	216	1,968	\$2,952.00	(\$0.005)	(\$9.84)	\$2,942.16	(\$1,101.84)	(\$91.92)	\$	1.495	(\$0.459)
2,400	10.00%	240	240	1,920	\$2,880.00	(\$0.015)	(\$28.80)	\$2,851.20	(\$1,192.80)	(\$90.96)	\$	1.485	(\$0.497)

Assumes Nonpareil Meat Deliveries

Assumes full premium for Chipped & Broken and Foreign Material = \$.055

Figure 1

As you can see in Figure 1, just going from a reject level of 2% to 3% you lose an extra \$224.16 per acre, even at a price per pound that no one wants to imagine. This loss continues to increase as reject levels rise, so it's easy to see that it pays to engage in winter sanitation.

In the end, phobias can be managed, and so can Navel Orangeworm. If you prepare, take the necessary steps, and follow through, the fear of this pest will no longer linger in your mind as you harvest next year's crop. There may be no hope for your fear of heights, though! •



Trent Voss Regional Manager **Blue Diamond Growers**



WANTED

Approximately 400 6' fence t-posts. Also 3,500' of 5' fencing in good condition

Call Daryl: 209-667-6895

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

- Weiss McNair Sweeper \$60,000
- John Deere 5100ML 4WD w/cab - \$55,000
- 200 Gallon Herb Sprayer \$3,300
- Rears 13' Flail Mower \$9,000
- 12' Orchard Leveler \$2,000
- Rhino 10' offset flail mower \$2,000
- Randell modified sprayer \$1,000
- Fergusen Spring Tooth 7' \$500
- Custom orchard float \$250
- Vintage Windmill \$2500

Call Ginger: (323)842-2799

FOR SALE

- New super strong shaker tires 10 ply-14.5/75 - 16.1. \$1,350
- Skid steer connect with forks and brush rake attachments (call for
- 350-gallon fuel tank \$400
- 3-point nut crowder \$1,500

Call Sam 209-765-0027 (leave message) Ceres.

FOR SALE

Micro sprinklers: very good Netafim green base sprinklers, stakes, 1/6" tubing, spaced 16' on 34 hose. 12-acre orchard removed.

Call to make offer: 209-667-6895

FOR SALE

Flory 6656 Sweepers:

- 2011 ± 4900 hours \$25,000
- 2014 ± 2400 hours \$35,000

OMC Sprint Shakers:

- 3) 2016 ± 4000 hours \$65,000
- 2011 ± 6000 hours \$45,000

Serviced and field ready. Located in Denair.

Call Ed: 209-874-1268

FOR SALE

1998 466 International diesel flatbed truck with 20' bed, 33,000 GVW, air brakes, Allison auto transmission, and fair tires. Licensed AG for <10,000 annual miles, \$10,000.

Call Bob: (209) 761-2690

FOR SALE

Verisimo fail mower Model #SC-100: \$5,000.00

9ft. wide float roller: \$1,000.00

Spring tooth with attached following harrow 8ft wide 3 point hook-up: \$1,000.00

Brush rake rear push 9ft. adjustable spacing: \$1,000.00 Call (209) 505-1731

FOR SALE

- Milk cans with lids
- Heavy Duty Ripper (3 shanks), \$2.500 OBO
- 150 gal Water Tank on frame with new tires, paint, and gravity flow. Used one season \$1800 OBO

Call Arby: 209-505-0555 or text 209-602-1400. Turlock area.

FOR SALE

10' Verismo mower. Good condition. New liner, \$5600. Call (209) 658-4521.

FOR SALE

Flory 7 ft sweeper head, Series 77. Good condition. \$8,000 OBO.

Call or Text (209) 605-2603. Manteca area.

FOR SALE

Qty 2 6656 Flory Sweepers: 61/2 ft head, Kubota diesel. Field ready. \$29,500 each.

Call (209) 599-7108

FOR SALE

Antique 1946 OS6 International Tractor. Running condition. \$900. Call 209-658-4521.

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

Amarillo Irrigation Well Gear Head with PTO shaft. \$850. Used very little.

Call (209) 620-4924

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. Sturdavent 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

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

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

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

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

- 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

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

Free listings in this section are for the exclusive use of Blue Diamond members.

Classified ads for personal use - not as an additional means of advertising commercial ventures members may own. Ads are limited to a maximum of 10 lines and may be submitted to Blue Diamond regional manager or the editor at:

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

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

Call (559) 268-3087

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



BLUE DIAMOND GROWERS

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