



almond facts

NEWS, VIEWS, AND INDUSTRY INSIGHT

JANUARY–FEBRUARY 2022



Blue Diamond's Rose Parade Float Features Four BDG Families



Almond Breeze®
Extra Creamy
is here!

Meet *Blue Diamond's*
New Board Members

"Time to Consider"
Welcomes
Dr. Brent Holtz

Make your next move
your best move.



Winning seasons start with strong openings.

To beat opponents that are constantly evolving, like bloom diseases, you need a strategic game plan:

- Make the first move with Scala® at pink bud
- Followed by Luna Sensation® at bloom/petal fall
- And close with Luna Experience® at two weeks post petal fall

That's check and mate.



/// Learn more at
LunaScalaGamePlan.com.



ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS.

Not all products are registered in all states and may be subject to use restrictions. The distribution, sale, or use of an unregistered pesticide is a violation of federal and/or state law and is strictly prohibited. Check with your local dealer or representative for the product registration status in your state. Bayer, Bayer Cross, Luna Experience®, Luna Sensation®, and Scala® are registered trademarks of Bayer Group. For additional product information, call toll-free 1-866-99-BAYER (1-866-992-2937) or visit our website at www.BayerCropScience.us. Bayer CropScience LP, 800 North Lindbergh Boulevard, St. Louis, MO 63167. ©2021 Bayer Group. All rights reserved.



Contents



- 8**
FIELD TEAM

- 10**
NEWS IN A NUTSHELL

- 18**
CORNERING THE MARKET

- 20**
GROWING THE GOODNESS

- 24**
ADVOCACY REPORT

- 28**
CULTIVATING SUSTAINABILITY

- 32**
IN YOUR ORCHARD

- 46**
CLASSIFIED ADS

Features

6 President’s Corner

Our President/CEO, Mark Jansen provides a crop forecast, a shipping update, and looks forward to another great bloom season.

12 Blossoming With Excitement: 2022 Rose Parade®

The 133rd Rose Parade® proved to be an exciting time for thousands of viewers and for our four grower families who rode the float through the streets of Pasadena!

20 Meet Blue Diamond’s New Board Members

We are pleased to introduce you to Kristin Daley (Director-at-large), George A. te Velde (District 4), and Nick Blom (District 6), who recently joined Blue Diamond’s Board of Directors. Read about their histories and life experiences that make them excellent additions to our Board.

38 “Time to Consider” Welcomes Dr. Brent Holtz

Almond Facts welcomes Dr. Brent Holtz, County Director and Farm Advisor for San Joaquin County, as the new contributor of our deeply valued “Time to Consider” section. Read on to learn about Holtz’s insights into the challenges the almond industry is facing this bloom season.

ON THE COVER:

Blue Diamond’s Rose Parade Float Featured Four BDG Families



▶ BOARD OF DIRECTORS

Dan Cummings, *Chairman of the Board* | Chico

Stephen Van Duyn, *Vice Chairman* | Modesto

Dale Van Groningen | Ripon

John Monroe | Arbutle

George A. te Velde | Escalon

Nick Blom | Modesto

Dan Mendenhall | Winton

Matthew Efird | Fresno

Kent Stenderup | Arvin

Joe Huston | Monterey

Kristin Daley | San Francisco

▶ OFFICERS

Mark Jansen, *President and CEO*

Dean LaVallee, *Chief Financial Officer/
Chief Operating Officer*

▶ ALMOND FACTS STAFF

Blue Diamond Growers Communications Department,
communications@bdgrowers.com

Jillian VanTassell, *Managing Editor*

Mel Machado, *Contributing Photographer*

Gray Allen, *Advertising Sales*
916.783.4334 & 916.765.3234

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, phone: 916.442.0771. Address all correspondence to the Editor, *Almond Facts*, P.O. Box 1768, Sacramento, California 95812. Advertising subscription rates provided upon request.

Blue Diamond is a registered trademark and marketing brand of Blue Diamond Growers. Other registered trademarks are *The Almond People*, *Smokehouse*, *Golden State*, *Celebration*, *From the Valleys of California*, *Confetti* and *Almond Facts*.

Blue Diamond Growers does not endorse or verify statements made by advertisers within this publication. Blue Diamond reserves the right to refuse advertising. All rights reserved. Reproduction in whole or in part without written permission is prohibited.

©Blue Diamond Growers 2022

Almonds

Best Clonal Rootstocks

- **Brights Hybrid BH[®] 5**
(cv. Arthur V) US PP18,782 P3
- **Krymsk[®] 86**
(cv. AP1) US PP16,272 P3
- **Hansen**
- **Viking**
- **Most major varieties available for delivery in 2022, including Yorizane The Gold Nut[™] Y116-161-99**
 - Self-fertile
 - Released by the U.S.D.A.



Clean, Clonal, Containerized

1-800-GRAFTED

duartenursery.com | Hughson, CA

John Arellano
Sierra Foothills
Lodi & Clarksburg
559-804-6949

Steve Scheuber
Central Coast
San Joaquin Valley
209-531-5065

Aaron Salsedo
San Joaquin Valley
Southern CA
559-892-6028

Ed Needham
San Joaquin Valley
Southern CA
559-977-7282

Tia Russell
North Coast
Southern Oregon
209-815-2399

John Duarte
At Large
209-531-6874

Steve Neill
Chico
Sacramento Valley
530-570-6830

Tim Coito
Chico
Sacramento Valley
530-521-8733



Clean Plants
For Your Future[®]

FRIDAY, MAY 6TH, 2022 | 9am-2pm
24TH ANNUAL
Friends Day
ALWAYS THE FIRST FRIDAY IN MAY!
TOURS • TRADE SHOW • LUNCH



Scan to RSVP

WORLD AG EXPO[®]

February 8-10, 2022

Duarte Booth K24
on "K" Street

**PISTACHIO
INDUSTRY
2022**
ANNUAL CONFERENCE

**BOOTH
28-29**

February 28 - March 2, 2022



Mark Jansen
President & CEO



A Fresh Start to the New Year

It was refreshing to see the year close out in December with a decent amount of rain throughout our Central Valley and reservoir-replenishing snow in the Sierras. I'm sure your orchards appreciated the much-anticipated drink. While January failed to provide additional rain, and more importantly snow, we remain hopeful that conditions over the next weeks will support the 2022 bloom and bring us much needed, but well-timed precipitation.

It appears the 2021 crop will reach 2.85 to 2.90 billion pounds, which is above the NASS Objective Crop Forecast. Anticipated to be the second largest crop on the heels of the 2020 record crop, the industry's supply of almonds remains strong. Even as our industry continues to work through shipping and supply chain issues market prices have stayed consistently above 2020's low levels. Going forward we hope to see this pricing stability continue, but bloom weather and ending inventory may put pressure on current levels for selected sizes and varieties.

The *Blue Diamond* team remains laser focused on a collective mission to deliver the benefits of your almonds to the world. Despite entering a third year of this global pandemic, our investment in health and safety protocols and protections has certainly paid off, keeping our team members healthy and the manufacturing lines running.

The domestic and international shipping and storage issues related to COVID-19 continue to be a challenge. I was pleased to see the USDA recently commit to a partnership with the Port of Oakland to increase capacity at the port. Behind the scenes, our supply chain leaders continue working directly with the ports and carriers to ensure alternative and long-term solutions. I know that you all have been experiencing your own challenges in the form of rising prices and shortages of resources needed to produce your crop.

With back-to-back years of record or near-record sized crops, the outlook for a larger carryout creates the need for demand expansion. We continue to explore innovative flavors and creative uses for almonds, with several new and exciting products anticipated this year to attract new customers, add value to the crop, and help ensure a strong competitive return for our growers.

Following all safety protocols for travel and public gatherings, our marketing teams are once again exhibiting in person at select trade shows, including participating in an overseas trade mission with the U.S. Ag Secretary, to encourage shipment growth. Along the lines of market expansion, we applaud the Almond Board's increased investment in marketing for the industry, including a new wellness advertising campaign in the U.S. and supplemental funds overseas for the key markets of India and Italy. *Blue Diamond* strongly supports such activities and recognizes the urgency needed in keeping up consumption momentum around the globe.

By the time you're reading this, most orchards throughout the state will be well past the green tip stage if not already pushing bloom. As I'm sure you can appreciate, bloom is a favorite time of year for us all — when stunning orchard visuals remind the world of the importance of California's almond industry.

We will once again use bloom as the perfect opportunity to highlight grower participation in *Blue Diamond's* newly rebranded Orchard



Stewardship Incentive Program, including successful implementation of programs such as Water for Bees and Seeds for Bees. Please reach out to your Regional Manager with questions about any of those programs.

I look forward to a successful bloom, healthy growing season, and a prosperous New Year for you all. ◆

A handwritten signature in black ink, reading "Mark Jansen". The signature is fluid and cursive, with a long horizontal stroke at the end.

Mark Jansen
President & CEO

Regional Managers

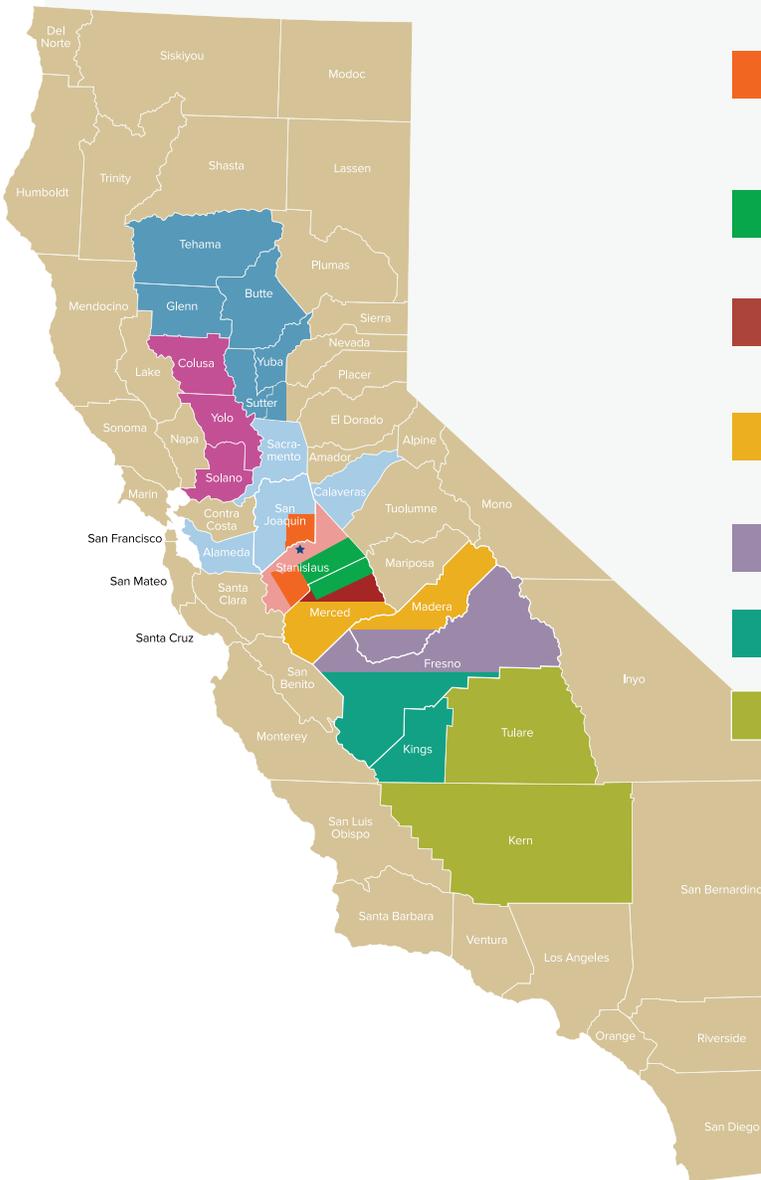


Vice President Member Relations

Mel Machado
(209) 545-6222 – Salida
(209) 531-6352 – Cellular

Director Member Relations

Ben Goudie
(209) 225-0413



Glenn, Butte, Tehama, Placer, Yuba & Sutter
Christine Ivory, (530) 518-9109

Colusa, Yolo & Solano
John Aja, (530) 338-6440

Sacramento, Calaveras, Alameda & San Joaquin West of Austin Rd
Ben Goudie, (209) 225-0413

Stanislaus County North of Tuolumne River & West of San Joaquin River
Justin Elam, (209) 303-7306

San Joaquin East of Austin Rd; Stanislaus South of Tuolumne, East of San Joaquin River & West of Hwy 99; Merced North of the Merced River, West of Hwy 99
KC Stone, (209) 596-5375

Stanislaus South of Tuolumne River, East of 99 & Merced North of Merced River, East of 99
Brian Noeller, (209) 417-2010

Merced County, West of 99 & South of Merced River, East of 99, North of Hwy 140
Trent Voss, (209) 470-5981

Merced County, South of Hwy 140 & Madera County, North of Ave 12
Kenny Miyamoto, (209) 323-8454

Southern Madera County & Northern Fresno County
Ashley Correia, (559) 356-1584

Southern Fresno & Kings Counties
Meggie Gilbert, (559) 470-9731

Tulare & Kern Counties
Meggie Gilbert, (559) 470-9731

Membership Office

Jennifer Claussen – Membership Coordinator
(209) 545-6225

Daniel Dekeyrel – Membership Assistant (*Delivery Tags*)
(209) 545-6261

Grower Accounting

Joe Lavagnino – Grower Accounting Manager
(916) 446-8591

Kristie Ezell – Grower Accounting Coordinator
(916) 446-8368

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

2022 Grower Liaisons

DISTRICT 1

P. Samantha Lewis **C**
 Chris Alves
 Luke Konyon
 Robert Thill
 Brian Erickson
 Stacy Gore
 Jerry Montz
 Steve Carlos
 Fred Montgomery
 Daniel Varner **VC**
 Greg Overton
 Julie Boss **!**
 Dan Cummings ******
 W. Howard Isom *****

DISTRICT 2

Cathy Marsh **C**
 Sid La Grande
 Joe Martinez
 Sarah Pippitt
 Maryann Warmerdam
 Don Bransford
 Ryan Finnen
 Brian Cahill
 Jake Driver **VC**
 Ron Tadlock
 Jake Spooner
 Amy Abele **!**
 John Monroe ******
 Elaine Rominger *****
 Gerald Rominger *****

DISTRICT 3

Nick Alta
 Chris Rishwain **C**
 Jack Dalton **VC**
 Don Van Vliet
 Rick Phillips
 Louie Tallerico
 Mike Bogetti
 Allen Sipma
 Bert Van Ryn
 Rudy Mussi
 Zack Reinstein **!**
 Dale Van Groningen ******
 John Thoming ***** **ABA**

DISTRICT 4

John Almeida
 Phil Mohler
 Jake Sonke **VC**
 Bryan Van Groningen
 Kevin Van Laar **C**
 Rick Morris
 Paul Adrian
 Wayne Bruns
 Tim Roos
 Mike Ballatore
 Dawn Price
 Ian Koetsier **!**
 George te Velde ******
 Kevin Fondse *****
 Kenneth Roos *****

DISTRICT 5

Eric Heinrich
 Naomi A. Layland
 Alex Vanderstoel
 Ryan Valk
 John De Visser
 Manuel Furtado
 Lucas Van Duyn **C**
 Grant Ardis **VC**
 Brandon Riddle
 Mark Giannini
 Dennis Bowers
 Stephen Van Duyn ******
 Neil Van Duyn *****

DISTRICT 6

Christine Gemperle **C**
 Don Clark
 Jared Serpa
 Hal Carlton
 Frank Borba
 Trent Voss
 Michael Mora **VC**
 Paul Danbom
 Eric Genzoli
 Rod Vilas
 Rick Alvernaz
 Gary Marchy **!**
 Nick Blom ******
 Charles Crivelli III *****
 Steve Vilas *****
 Bill Brush ***** **ABA**

DISTRICT 7

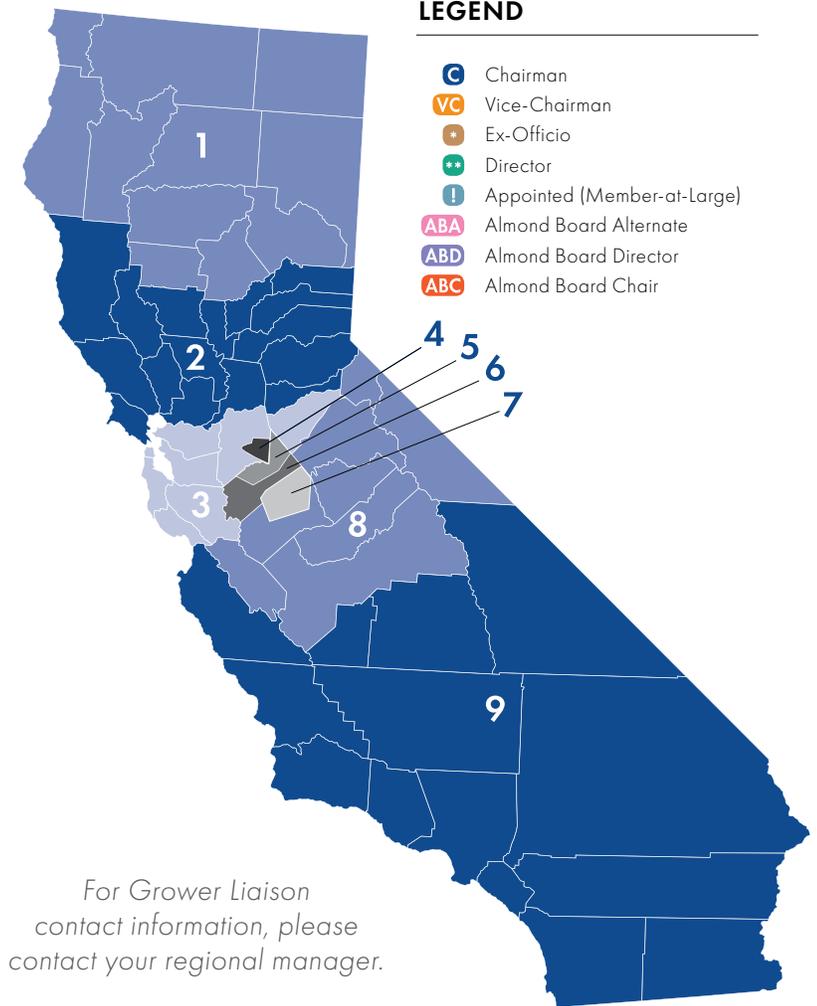
Frank Fagundes
 Jeffrey Baize
 Tim Lohman
 Rick Scoto
 Galen Miytamoto
 Joe Sansoni **VC**
 Jimmi Atwal
 Louis Bandoni
 David P. Souza
 James Ohki
 Jason Chandler **C**
 Dan Smith **!**
 Dan Mendenhall ******
 Robert J. Weimer *****

DISTRICT 8

David Tolmosoff
 Robert Allen
 Jens Finderup
 RJ Maan
 Ryan Indart
 Lee Erickson
 Norman Pretzer
 Steve Bains
 Mike Yager **C**
 Neil Amara
 Mason McKinney **VC**
 Blake Little **!**
 Matt Efird ******
 George Goshgarian *****
 Aldo Sansoni *****

DISTRICT 9

Mark Fanucchi **VC**
 Doug Kindig
 Ray Van Beek
 Mark Palla
 Gurcharan Dhillon
 Kyle Balakian
 Keith Gilbert
 Karamjit Jhandi
 Mark Tos
 Benjamin Wilson **C**
 Paramjit Dosanjh
 Lisa Marroquin **!**
 Kent Stenderup ****** **ABA**
 Clinton Shick *****



Almond Alliance of California Names Aubrey Bettencourt as President/CEO



The Almond Alliance of California (AAC) has named Aubrey Bettencourt as its new President and CEO. She currently serves as Director for Sustainability for the California Cattle Council and Western United Dairies and has extensive experience dealing with a wide range of California agricultural and natural resource issues. Bettencourt succeeds Elaine Trevino, who has been nominated by President Biden to be the Chief Agricultural Negotiator for the U.S. Trade Representative. Trevino

is awaiting a confirmation hearing before the U.S. Senate Finance Committee.

Almond Alliance Chairman Mike Curry said Bettencourt's selection came after an extensive and thorough executive search. Curry commented, "We are extremely excited to have Aubrey Bettencourt as the Almond Alliance's new President and CEO. Aubrey comes to us with a wealth of diverse knowledge and innovative advocacy work on behalf of farmers and ranchers. As the California State Director of the USDA Farm Service Agency, she fought to keep 'farmers farming' through the delivery of effective and efficient agricultural programs. Serving as Deputy Assistant Secretary in the Water and Science Division of the U.S. Department of the Interior, Bettencourt developed and coordinated national water and science policy, expanding her extensive knowledge of state and national water issues and available resources, making her a unique asset to our membership and community."

Curry added, "Aubrey's work as the director of the statewide non-profit, California Water Alliance, has given her the tools necessary to advocate for our members as the water crisis in California becomes even more complicated.

As the Director of Sustainability for the California Cattle Council and Western United Dairies, Bettencourt has focused on water supply and water quality, forest health and fire prevention, carbon sequestration, climate resiliency and ground water sustainability. Raised in a farming family, Aubrey has firsthand knowledge of what it takes for a family farm to survive in California and beyond."

"I am excited to join the Almond Alliance, a dynamic leader in American agriculture," Bettencourt said. "As a fourth generation California farmer, it is a personal honor to serve. I look forward to working with this team to keep farmers and processors providing economic opportunity to our rural communities, bringing worldwide the highest quality product from our farms to your table."

Bettencourt noted, "The California almond farmer is the most sophisticated in the world; leading in technique, technology, sustainability, safety, and quality. We take pride in this role and great responsibility in this legacy. The challenges we face as an industry including water, labor, energy, supply chain, and climate change, are opportunities for our continued leadership and advocacy. Rather than reacting, we will lead with our own achievable, common-sense solutions to these challenges for the continued success of our farmers, our communities, our businesses, our environment, and our consumers."

Curry noted that in her three years at the helm, Trevino led the almond industry through some very challenging times and wished her the best in her new position. "I am so incredibly excited for Elaine and her nomination by the President to be the next Chief Agricultural Negotiator at USTR," Curry commented. "As the President and CEO of the Almond Alliance, Elaine has led our industry through very difficult times. From trade wars, labor issues, struggles during the pandemic, to port issues, Elaine has been a fierce leader fighting the good fight. In every step of the way she has done the good work for California. Yet Elaine

has always kept the communities of our members at top of mind, knowing the economic impact the almond industry has on so many California communities. Elaine has been a true advocate for the good of all. Elaine is the type of leader with the focus to leave things better than she found them."

Looking ahead to her new role, Curry said, "There is no doubt in my mind that as the Chief Agricultural Negotiator, Elaine will continue to be the person who adopts real solutions to real problems. The United States agricultural community has gained a true problem solver in Elaine Trevino."

Elaine thanked Almond Alliance members and partners for their support over the past three years. "It has been an honor to work for the Almond Alliance," she said. "Together we took the Alliance to new heights and strengthened the voice of almonds in Sacramento and Washington DC. Thank you for the opportunity you have given me to lead one of the best agricultural associations in the country. I look forward to staying in touch and learning about the Almond Alliance's future successes."

Bettencourt assumed her new role on December 1, 2021 and will work out of the Alliance's Modesto office.

About the Almond Alliance

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

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

The most **Versatile & Adaptable**
ROOTSTOCK

Bright's (cv ArthurV) USPP# 18.782P3
Hybrid[®] 5

Salt Tolerant

- High pH Tolerance
- Mid-size Hybrid
- Nematode Resistant
- Well Anchored

info@p2g.us.com

P2G™

Bright's Nursery
1-209-389-4511

DUARTE TREES & VINES
1-800-472-3833

Fowler NURSERIES, INC.
1-800-675-6075

SG Sierra Gold Nurseries
1-800-243-4653

Blue Diamond Growers does not endorse or verify statements made by advertisers within this publication.

Floating Into the New Year

Blue Diamond Growers brought its almond growing history to life in this year's Rose Parade®, the iconic annual New Year's Day event in Pasadena. This is the fourth year the growers' cooperative/global brand participated in the parade and this year's custom float carried sixteen BDG growers from the Yamamoto, Mailloux, Gemperle, and Lewis-Rohwer families. They were selected for their deep commitment to sustainability and environmentally responsible farming, feeding into the parade theme of "Dream. Believe. Achieve." The energy and excitement were tangible, and all who took part thoroughly enjoyed the festivities. One grower family even stated that the 2022 Rose Parade® events, including the Rose Bowl game, was "One of the top ten best days of our lives."



Dozens of volunteers built and decorated *Blue Diamond's* amazing float which boasted vibrant almond blossoms symbolizing the beginning of each almond's journey, a rustic truck filled with sacks of almonds representing the successful fall harvest, and two gift baskets displaying a few of the more than 100 *Blue Diamond* products made with our quality almonds. Every *Blue Diamond* product starts with almonds harvested by you, our Central Valley grower-owners, who farm with the future in mind, and leave legacies of healthy land to the next generation.

One of our float riders, Christine Gemperle, shared this post on Instagram about her experience:

"The last two days have been an amazing experience and I want to send a huge 'thank you' to @bluediamondgrowers who gave us the opportunity to participate, and the creative AES team and volunteers who made it happen. The people along the parade route were so happy and we had countless supportive shouts about how much they loved almonds and *Blue Diamond* almondmilk. We even had people proudly showing us their snack can or big bag of Smokehouse. It was so fun to interact with a fabulous cross section of California and America. The support was overwhelming, so to all you *Blue Diamond* growers out there and almond growers everywhere, keep growing. What you do matters...it

“To all you Blue Diamond growers out there and almond growers everywhere, keep growing. What you do matters... it matters A LOT!”

— Christine Gemperle



matters A LOT! I can't tell you what an amazing experience this was to have with my boys given the rough and sad last year. Thank you! I'm so proud to be a *Blue Diamond Grower*. #wearebluediamond"

Our growers float showcased how *Blue Diamond's* legacy of quality came into existence, from the first tree planted in California's rich soil, to the bloom of our expansive, vibrant orchards, to the creation of delicious *Blue Diamond* products made with the highest quality almonds.

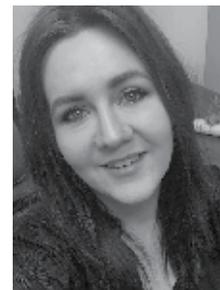
"*Blue Diamond* is pleased to, for the fourth year, participate in the Rose Parade®," said Raj Joshi, SVP

Global Consumer Division for *Blue Diamond Growers*. "It's a great way to showcase to the world our amazing growers and the innovative ways they farm sustainably and serve as responsible stewards of the land. We're proud of our growers and the quality of our almonds, and we're extremely proud of our brand!"

About the Pasadena Tournament of Roses

The Tournament of Roses® is a volunteer organization that hosts America's New Year Celebration® with the Rose Parade® presented by Honda, the Rose Bowl Game® presented by Northwestern Mutual,

and a variety of accompanying events. An estimated 935 volunteer members of the association drove the success of 133rd Rose Parade themed "Dream. Believe. Achieve" on Saturday, January 1, 2022, followed by the 108th Rose Bowl Game. For more information, visit www.tournamentofroses.com. ♦

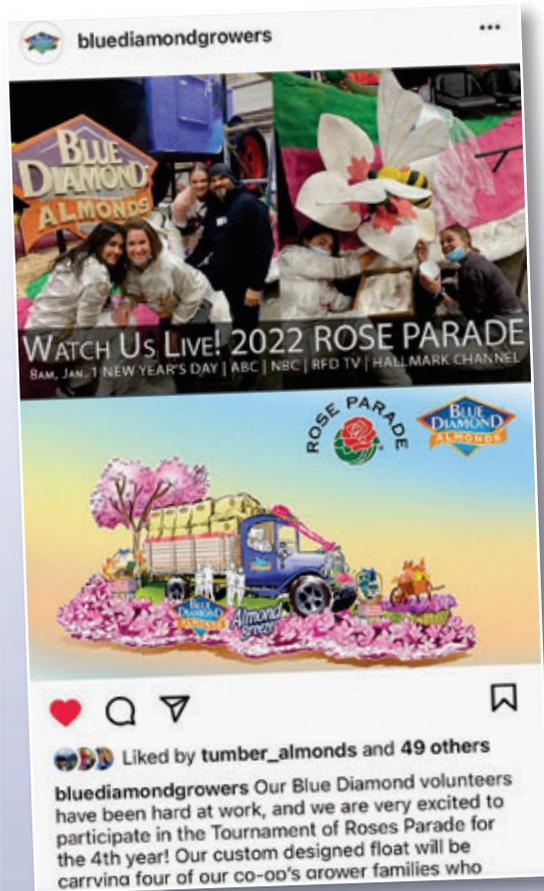


Jillian VanTassell,
Communications
Specialist,
Blue Diamond
Growers,
Sacramento

#WeAreBlueDiamond Social Media Activity



This month, *Blue Diamond* celebrated the New Year by being part of the Rose Parade on our very own float! The *Blue Diamond Growers Foundation* announced that its scholarship application cycle for *Blue Diamond* families is open through March 31, 2022, and the *Blue Diamond Orchard Stewardship Incentive Program (OSIP)* has officially launched! ♦



A photograph of a Suterra Puffer pheromone dispenser hanging from a tree branch. The dispenser is a cylindrical device with a white base and a tan top section. The tree has green leaves and small, round fruits. The background is a clear blue sky.

Suterra
Puffer[®]

Durable. Sustainable. Trusted.
The most trusted mating disruption pheromone for navel orangeworm.

suterra.com/puffer

Chicken, Broccoli and Rice Casserole

Prep Time: 50 minutes Cook Time: 50 minutes Difficulty: Easy Servings: 4

Ingredients

- 2 tablespoons butter or buttery spread
- 1¼ cups *Almond Breeze* Vanilla Almondmilk divided
- 1 cup chicken stock or reduced-sodium broth
- 1 teaspoon each: dried thyme and garlic salt
- 1 cup long grain white rice
- 1 pound boneless skinless chicken breasts cut into ½-inch cubes
- 1 cup chopped onion
- 2 cups chopped fresh broccoli
- 1½ cups shredded sharp Cheddar cheese (dairy or non-dairy)
- Freshly ground pepper to taste



Directions

1. Bring butter, ¾ cup *Almond Breeze* almondmilk, broth, rice and seasonings to a simmer in a large saucepan. Top with chicken and onion. Cover and cook over low heat for 20 minutes.
2. Remove from heat and quickly add broccoli to pot. Cover and let stand for 5 minutes.
3. Stir in remaining *Almond Breeze* almondmilk, then lightly stir in cheese. Cook over low heat just until cheese is melted, being careful to not overcook. Season with pepper. Makes 4 servings.

Wholesome Almond Flour Waffles

Prep Time: 20 minutes Cook Time: 20 minutes Difficulty: Easy Serves Up To: 5

Ingredients

- 1 cup superfine *Blue Diamond* almond flour
- ½ cup quinoa flour
- 3 tablespoons flaxseed meal
- 1½ teaspoons baking powder
- ½ teaspoon cinnamon
- ½ teaspoon vanilla bean powder
- ¼ teaspoon sea salt
- 3 eggs separated
- ½ cup *Almond Breeze* Unsweetened Almondmilk
- 2 tablespoons maple syrup (or liquid sweetener of choice)
- 1 tablespoon melted coconut oil (optional)

Directions

1. Heat a waffle iron to medium-high. In a large bowl, whisk together the dry ingredients and set aside.
2. Separate the eggs into two additional mixing bowls. To the bowl with the yolks, add the almondmilk, syrup and oil if using, and beat together until smooth. For the whites, beat on high with an electric mixer until they can hold stiff peaks.
3. Add the yolk-milk mixture to the dry ingredients and mix until just combined. Add the whites and gently fold until the batter is just combined again. Careful not to over mix as you don't want to deflate the egg whites.
4. Grease the waffle iron and drop ¼ cup of batter into the center. Cook according to your waffle maker's instructions until golden brown and lightly crispy; typically about 2–3 minutes. Transfer waffle to a wire rack and repeat with remaining batter.
5. When ready to serve, top with desired toppings and enjoy!



Blue Diamond Introduces New, Delicious Almond Breeze Extra Creamy Almondmilk for A Perfect Plant-Based Swap for Whole Dairy Milk

The #1 almondmilk in the U.S. brings a new, rich and creamy variety to shelves this January

Blue Diamond is expanding our selection of Almond Breeze products with the launch of Almond Breeze Extra Creamy Almondmilk.

Almond Breeze Extra Creamy Almondmilk is a delicious, new almondmilk with the same creamy texture as whole dairy milk using almond oil made from Blue Diamond almonds to give the product an extra creamy texture. It will be available on grocery store shelves and at major retailers beginning January 2022.

“We are the pioneers in almondmilk. Our team is always determined to innovate new and delicious products for those looking to add plant-based alternatives into their lifestyle,” said Maya Erwin, Vice President of Innovation and R&D at Blue Diamond. “The debut of Almond Breeze Extra Creamy Almondmilk gives consumers the same texture and consistency they want from dairy milk, but with the almondmilk they know and love from Almond Breeze.”

Almond Breeze Extra Creamy Almondmilk’s use of almond oil for a creamier texture is a solve to a barrier that many consumers face. Many people find plant-based milks to be too thin compared to dairy and opt for alternative products in the plant-based milk category.

“Many consumers looking for a creamy, non-dairy option may turn to plant milks like oat milk, but often find that the tradeoff is a grainy texture and starchy taste,” said Bonnie Taub-Dix, Registered Dietitian and Nutritionist. “With fewer carbs than the leading oat milk, Almond Breeze Extra Creamy Almondmilk is an all-around better choice.”

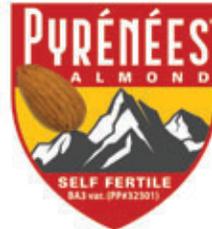
Almond Breeze Extra Creamy Almondmilk contains 80 calories per serving. It is low in saturated fat, and it has an excellent source of calcium and vitamins D and E and a good source of vitamin A. This new product can be used as a swap for whole dairy milk in any recipe or usage occasion, such as in coffee, cereal, smoothies, and baking. It can also be enjoyed on its own by the glass! Blue Diamond Extra Creamy Almondmilk is great for consumers who are lactose intolerant or sensitive to dairy, prefer vegan options, or simply want to enjoy non-dairy alternatives to drink and cook with. ◆



Almond Breeze Extra Creamy Almondmilk

**ONE
SHAKE
ONE
HARVEST**

**EQUALS
\$
\$
\$
\$
\$
\$
\$
\$**



CALL NOW • SUPPLIES LIMITED

ROBERT GRAY
209-602-2236

TIM GERDTS
559-285-3114

MANNY SOUSA
209-485-4552

GERRY HUNTER
530-776-7605

JEREMY BAHNE
559-430-5399

BURCHELL NURSERY

burchellnursery.com 800 828-TREE

© 2022 The Burchell Nursery, Inc.

Blue Diamond Growers does not endorse or verify statements made by advertisers within this publication.

Blue Diamond Welcomes Three New Board Members



This year, *Blue Diamond* was proud to welcome three new Directors to the Board: Kristin Daley, Director-at-large, George A. te Velde, District 4 Director, and Nick Blom, District 6 Director. Get to know each of these skilled, new members, and their passion and plan to make *Blue Diamond* an even greater success!



Director-at-large, Kristin Daley

Born in North Dakota to parents who are both from family homestead farms, Kristin Daley knows what farm life is about. Though she moved out of state when she was young, she spent her summers working back on the farm performing chores such as driving the truck to the grain elevator. Her upbringing instilled a strong affinity for agriculture, and since college, her career in strategy consulting has chiefly focused on the food industry.

Daley joined the board at McCain Foods in 2013. She shares that it recently became clear to her that she could become an even stronger board member by serving on a second board to “cross-pollinate ideas between analogous businesses” as she put it. She established four criteria for herself in seeking a new board: 1. A food company, 2. A large enough company that issues and challenges would be similar to McCain Foods, 3. A significant ag component, and 4. International scope. *Blue Diamond* hit all four criteria with the bonus that it is a co-op.

Daley serves on several committees at McCain Foods including Audit, Comp, and ESG, which she is especially passionate about. There are fundamental commonalities between issues on like committees, making her knowledge relevant across all boards. Daley has a deep understanding of the importance of achieving environmental sustainability that fits with the strategy

“Every farmer in the world thoroughly understands sustainability. Every farmer is a steward of their land. It’s an easier story to understand in a cooperative even than it is in a regular food processor.”

of a business to drive economic sustainability and integrating stakeholders like customers, suppliers, and community. Daley stated, "I'm happy that *Blue Diamond* is so interested in being at the cutting edge and being proactive on these issues."

Daley feels strongly about paying it forward and serves on the leadership team of Stanford Women on Boards where she helps other women get into the boardroom. She also is heavily involved with Women Corporate Directors, National Association of Corporate Directors, and Institute of Corporate Directors. Since August 2021, when Daley joined the *Blue Diamond* board, she has been impressed with the level of professionalism and sophistication within the group and also with governance processes. She states that the board members are "easy to work with and respectful of each other." She added, "People really enjoy each other."

And it's not just getting along and achieving goals that is pivotal to the board, but the diversity is also key. "There's a lot of data now that show better financial performance from companies who have more diverse boards," she stated. Age, gender, and professional and social backgrounds are among the many facets of diversity that make *Blue Diamond's* board successful.

Daley's 12-year-old daughter is interested in her food industry career, assisting in product cuttings at home and discussing products. She cares about nutrition and food labels, often asking Daley to purchase something because "It doesn't have any artificial sweeteners." And Daley is pleased to hear it!

Kristin loves continuing education. In her free time, she can be found watching webinars about governance issues and cyber security threats or attending the next climate change event. She holds a bachelor's degree in Human Biology from Stanford University.



Kristin Daley hiking in Palm Springs with her husband Jeff Rose and daughter Amandine (coincidentally named!)

THANK YOU BLUE DIAMOND GROWERS and OUR GENEROUS DONORS for your support of GIVING TUESDAY

Your support provided FFA jackets to California FFA members who may not otherwise be able to afford one. *Blue Diamond Growers* matched donations, up to \$25,000 - providing a total of 807 jackets to deserving California FFA members!



CALIFORNIA
FFA FOUNDATION



Since 2016...
3,334 JACKETS GRANTED
\$259,838 TOTAL RAISED
OVER 92,000 CA FFA MEMBERS
AND 340 FFA CHAPTERS

For more information, visit:
WWW.CALAGED.ORG/GIVINGTUESDAY



New District 4 Director, George A. te Velde, of G & E te Velde Orchards, LLC

In 1926, George A. te Velde's grandfather moved from the Netherlands to the U.S. where he started his own dairy, a legacy that te Velde has continued in his grandfather's and father's footsteps. But it didn't take much for him to expand his interest to almonds. A few years after purchasing land with an almond orchard, te Velde gained significant interest in *Blue Diamond*. He became a member and declared that he has "never regretted the decision" in his 15 years as a *Blue Diamond* grower.

When asked by a fellow grower, te Velde gladly agreed to run for a seat on the board, since he loves the co-op and has "really enjoyed the stability *Blue Diamond* provides to our pricing." Te Velde farms just over 200 acres of almonds, almonds in addition to walnuts, corn, alfalfa, and row crops. He also runs a dairy. He is significantly interested in policymaking and providing insight with his leadership experience.

After serving on several committees in his children's schools and child education committees, working as a cartoonist on the Modesto Bee's Editorial Board, and serving on the Producer Review Board in the dairy industry for nine years, te Velde is no stranger to making big decisions and providing strong management. He appreciates the hard work and wisdom the board has shown over the years. Te Velde hopes to bring his experience and diversity of opinion to make the future of *Blue Diamond* even greater.

"Being a member of *Blue Diamond* is a privilege. I wish to continue the work the board is doing and to keep important issues in mind" te Velde stated.

Te Velde holds a bachelor's degree in Economics from UC Davis. He and his wife, Elizabeth, have been married for 31 years and they have four children and one grandchild. In his free time, George enjoys playing piano, cactus gardening, and traveling with his family.

*“Being a member of
Blue Diamond is a privilege.
I wish to continue the work
the board is doing and to keep
important issues in mind.”*



George A. te Velde hiking in Yosemite with his wife, Elizabeth



New District 6 Director, Nick Blom, of Blom Farms and Blom’s Ranch Inc.

“Growing up on the farm meant you were naturally required to help on the farm.” — Nick Blom

When Nick Blom was a small child, his dad would hold him on his lap while driving the tractor and eventually noticed that Nick could push the clutch down on his own. This led him to ask, “Well, what am I here for?” and Nick began driving the tractor on his own at just five-years-old. And it’s no wonder Blom was a natural since his family has a long history of farming before they immigrated to the U.S. from Holland. In 1969 his father began with grapes, then switched to almonds in the 1970s before becoming a *Blue Diamond Grower* in 1975.

And the proverbial almond didn’t fall far from the tree. Blom’s eldest son also helped steer the tractor when he was five years old, sitting on his dad’s lap. And he loved spending up to eight hours on the harvester without complaint.

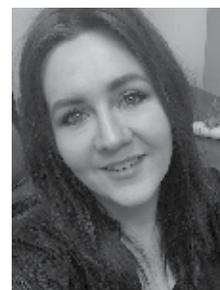
After his father’s passing, Nick’s family operation with his mother and brother continued to grow to 1,200 acres of almonds, peaches, grapes, walnuts, alfalfa, and corn. However, almonds remain their main crop. Blom and his wife Kristina joined the *Blue Diamond* Leadership Program in 1999 and between the two years, they had their first child, so the baby went along to leadership meetings, as well! Part of the reason why Blom appreciates *Blue Diamond* is because “They’re very consistent with price to the grower,” he said. “They always seem to have innovative thinking as far as marketing and assisting the growers in varieties and growing methods.” He also mentions how nimble the organization is to evolve with the times:

“You have to be able to change because if you stand still, you fall behind. *Blue Diamond* has never stood still. It’s one of those companies that’s looking to the future to make it better. They’re the leader in the industry.”

The Blom family always spoke to the importance of being involved in the community. Nick took that to heart by serving as Board member of the Volunteer Fire Department and on the Modesto Irrigation District (MID) Board, which—along with his political connections and experience on school boards and historical societies—are sure to serve the *Blue Diamond* board well. As far as water is concerned, District 6 has been able to control, protect water rights, and store water properly and successfully. With the presence of Turlock Irrigation District and MID (the first and second irrigation districts in the state) it is no wonder why there are so many farms in the area. We all look forward to Blom sharing his water expertise with *Blue Diamond*.

Nick holds his bachelor’s degree in Ag Education from Fresno State. He and his wife, Kristina, have three children: Annika, Sterling, and Heston. ♦

“You have to be able to change because if you stand still, you fall behind. *Blue Diamond* has never stood still. It’s one of those companies that’s looking to the future to make it better. They’re the leader in the industry.”



**Jillian VanTassell,
Communications
Specialist,
Blue Diamond
Growers,
Sacramento**



Current Washington Situation

The political situation in Washington is changing rapidly. It is now predicted that Republicans will take back the House in November of this year. It needs to be kept in mind that a lot can happen between now and November, but this is the present situation. It is foreseeable that between 35 and 50 seats may change. This is due to several things including retirements by 25 Democratic House Members and redistricting. One California Republican has resigned this month.

Additionally, there are currently 14 House Members being investigated by the House Ethics Committee. This is the most at one time ever.

In California the new Congressional Districts have now been established based on the current census. This will change the districts for several current Members of Congress. Some current California House Members are expected to have a difficult time being reelected.

The situation in the Senate is not clear. It is certainly possible that the Senate will also change from Democrat to Republican. Since it is currently 50-50, it will not take much

to change the Senate. For this to happen the Republicans will have to maintain all their current seats and pick up at least one seat currently held by a Democrat. Another possibility is that one or two Democrat Senators switch parties. If only one does, this will give the Republicans the majority and control of the Senate. This has happened in the past but is not expected to happen now.

Even though the 2024 Presidential election is three years off, many are already focused on it. The President has stated that he will run again. He has to say this, or he would immediately be considered a lame duck.

There are at least 10 Republicans who appear to be preparing to seek the nomination. None have officially declared their intention to seek the nomination. They will hold off doing so as long as possible. Once a candidate announces that they are seeking the nomination, there are definite regulations that apply and must be followed. Candidates prefer to hold off having to comply with these rules if possible.

The President's most important legislation known as the Build Back Better bill has not been able to pass in the Senate. Recall this was originally referred to as the 3 trillion-dollar bill which was to be passed by reconciliation. This means it would only be voted for by Democrats. The bill was cut back to where it was said to cost only 1.75 trillion dollars. When the GAO scored the bill as is required, it reported that the actual cost was approximately 5 trillion dollars. Democratic Senators have said that they will pass this bill this year, but they do not currently have the votes to do so in the bill's present form and cost.

The Senate Democratic Leadership has stated it will change the filibuster rule this month to allow it to pass the voting rights bill. This cannot be done with the filibuster in place. Several Senate Democrats have stated they are opposed to ending the filibuster and will not support a change to it. The filibuster is a long-standing Senate tradition.

The international situation is increasingly unstable. Russia continues to mass troops on the border of Ukraine. There is increasing concern that Russia will invade Ukraine. Russia reportedly now has 100,000 troops on Ukraine's border with 75,000 more on the way. Russia is likely to begin with small, short incursions into

Ukraine. Depending on what happens as this takes place, a full invasion may follow.

Recall in 2014, Russia entered Crimea and took control of it. Russia is currently directing the war in the Donbas region of Ukraine. Russia claims this is a separatist rebellion. So far, 14,000 people have been killed in this conflict.



110TH ANNIVERSARY

THANK YOU

FOR HELPING US
ACHIEVE THIS
MONUMENTAL
MILESTONE!



Fowler
NURSERIES, INC.

(800) 675-6075
FowlerNurseries.com

Blue Diamond Growers does not endorse or verify statements made by advertisers within this publication.

The U.S. and other European Countries are working hard to prevent Russia from doing this. This is being done by trying to persuade Russia that the consequences will be severe if it does invade. The U.S. has indicated it will provide Ukraine with military supplies but has not done so yet. It has kept an aircraft carrier and the accompanying fleet in the Mediterranean rather than having it depart as scheduled.

NATO has increased its troop deployment in eastern Europe.

In return, Russia has been reducing the supply of energy to Europe, especially Germany. Russia is demanding that it be given assurance that Ukraine will not be allowed to join NATO. Russia is also demanding that NATO pull its troops and equipment back from eastern Europe and the Balkans.

Bilateral talks between the U.S. and Russia are scheduled to begin on January 10 and then continue later in January. Some are urging that both Ukraine and NATO be included in these talks.

On the other side of the world, China continues to increase its hostility toward Taiwan and tighten control in Hong Kong. It is also becoming more active in the South China Sea. China has publicly stated that if Taiwan continues its hostility, it will take drastic action against Taiwan. The hostility China is referring to is Taiwan's declaring it is independent from China.

China continues to fly excursions into the air space over the Taiwan Strait. This is irritating Taipei regularly. The situation with Taiwan is the biggest impediment to good U.S.-China relations. Additionally, the U.S. has indicated it may start negotiations with Taiwan on a Free Trade Agreement. This will increase China's agitation with the U.S.

The U.S. has just enacted legislation preventing imports from China that are produced in the region where the Uyghurs are located. This was done due to China forcing the Uyghurs to work for China. This legislation has increased China's irritation with the U.S.

North Korea has just resumed firing missiles off its east coast. It is believed these are ballistic missiles.

This is not good for trade and is especially difficult on our almond exports. If actual hostilities break out in either location or both, it will have a negative impact on our exports to these countries. It is also probable that it will adversely impact exports to either or both regions.

Related is the fact that our ports remain congested. There is a lot of work going on to resolve this problem, but it is likely to remain for some time.

It is disappointing that the USTR's Agricultural Trade Ambassador has not been confirmed and in place yet. The President nominated Elaine Trevino for this position last fall, but the Senate has not considered this nomination yet. It is hoped that this will occur this month. It is expected that she will be confirmed easily when she is considered. Chairman Jim Costa will introduce her to the Senate Committee considering her nomination. Under Senate rules, her nomination may have to be resubmitted by the White House.

There is some work going on by the USTR to improve access to several markets for agriculture, including almonds. This includes India, China, and Japan. While there has been no progress, discussions are continuing.

This is especially important with China which has a new labeling regulation for imported products, including almonds, that went into effect January 1. U.S. and Chinese high-level discussions have been ongoing trying to get China to postpone implementation of the new regulation. This has not been successful to date. If imported products are not labeled according to the new regulation, they will be denied entry into China.

Both the UK and India want to establish a Free Trade Agreement with the U.S. While there has been work on a Free Trade agreement with the UK, the U.S. is in no hurry to complete it. Despite India's interest in a Free Trade Agreement, the U.S. has no current interest in it. Some in Congress are pushing the Administration to join the TPP, but there does not seem to be any interest in this either.

Related to this is the fact that the President has not nominated an Undersecretary for Trade at USDA. This person functions as the lead for agriculture in international trade negotiations. Hopefully, this will occur this year.

The House is beginning to work on the new Farm Bill. While the current Farm Bill does not expire until next year, the House Democrats recognize that the House Agriculture Committee may have a different Chairman next year that may not agree with the Democrats' wishes for the Farm Bill. As a result, the current Chairman has stated that negotiation on the new Farm Bill will begin in a few weeks. Work is now underway on drafts for climate change and environmental concerns especially covering conservation matters. The current House Agriculture Committee hopes to provide sufficient funding for these items and knows it will be more difficult next year with a different Committee Chairman and Committee makeup.

It is helpful to consider that all recent Farm Bills since 1990 have been passed in an election year with one exception. If this is to remain the same for this Farm bill it will have to be passed this year or will be passed in 2024.

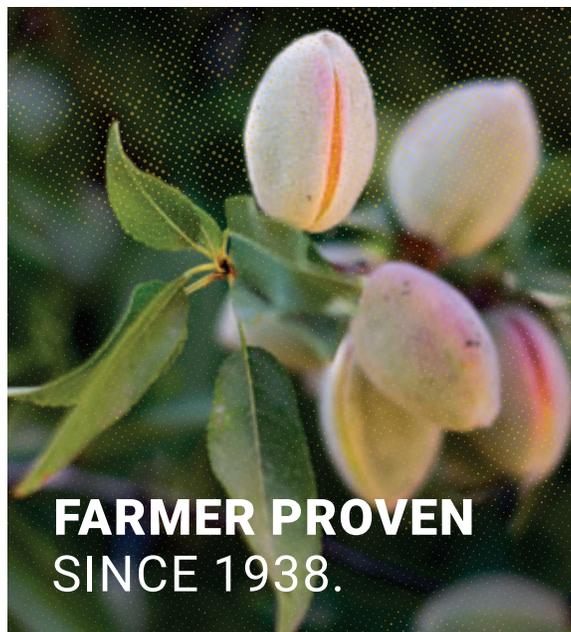
There has been disappointment that the Senate has not passed the House passed immigration bill which provided a legal workforce for agriculture. While there has been bipartisan work to reach an agreement in the Senate, it has not been reached. Three times the Democrats tried to include it in the Build Back Better bill, but each time the Senate Parliamentarian ruled it out of order so that it could not be included in this bill. Additional work will continue this year to find a way to obtain passage in the Senate.

We are closely following the court cases considering the President's mandate for businesses with 100 or more employees. Many states, labor unions, and others have filed suit to block this mandate. The Sixth Circuit Court of Appeals enjoined the mandate. The Fifth Circuit Court of Appeals lifted the injunction. The Supreme Court is now considering this case. The Supreme Court resolves the matter when there is a split in the Circuits, as now exists. The Justice Department is vigorously defending the President's mandate. Oral argument before the Supreme Court will occur this month.

Everything in Washington is very intense and will continue to be all year. New developments will occur frequently. ♦



Blue Diamond Advocate
Julian B. Heron,
Partner, Tuttle, Taylor & Heron



FARMER PROVEN SINCE 1938.

- Proudly offering quality almond, walnut, and pistachio trees.
- Choose from over 25 nut varieties, including the industry's leading self-fertile almond - the Independence®.
- Our knowledgeable staff provides guidance throughout the life of your orchard.

Contact Your Rep Today!

№ 1-844-DWN-TREE

DWNTREES.COM

📷 📱 @davewilsonnursery



Blue Diamond Growers does not endorse or verify statements made by advertisers within this publication.

PROJECT APIS M.

Recommendations for Honey Bees Pollinating Almonds

In January each year, beekeepers across the nation begin the monumental task of transporting honey bees to California for almond pollination. While almond growers are finding it increasingly difficult to get reliably strong colonies, beekeepers are facing growing challenges to keep their hives alive. Beekeepers must work year-round maintaining, managing, feeding, and treating their bees for Varroa and diseases to ensure a good supply for the almond industry. Almond growers also play a part in the success and sustainability of pollination.



Photo by Project Apis m., 2022: Trucks carrying honey bees line up at the border station in Truckee, California for inspection in January, 2022. Each semi-truck holds around 400 honey bee colonies. It is estimated that over 4,000 trucks will bring bees into California this year, from as far away as Massachusetts and Florida.

As the almond bloom approaches and millions of honey bees approach California, it is a great time for growers to review the Almond Board's "Honey Bee Best Management Practices for Almonds" (almonds.com/beeBMPs). This excellent resource gives clear guidance on how almond growers can contribute to keeping honey bees safe and healthy during the pollination season.



Photo by Project Apis m., 2019

In addition, growers can consider these recommendations for honey bees pollinating almonds from Project Apis m:

Communication

Growers should communicate with all parties that are involved with pollination. Proper communication will certainly include the beekeeper who is providing the colonies, but might also include a bee broker. Growers should also be communicating with their pest control adviser (PCA), and certified pesticide applicator (CPA) to ensure safe and responsible product applications while bees are present.

California county agricultural commissioners also play a vital role in the communication chain between growers and beekeepers. All colonies are required to be registered with each county agricultural commissioner upon arrival in that county.

The best way to register colonies is by using the Bee Where program. This web based program offers beekeepers a dynamic, real-time geographic information system (GIS) where they can mark colonies with a pin drop in the orchard via a mobile app. Bee Where is useful to growers because their notice of intent (NOI) required for some material applications allows each county agricultural commissioner to notify beekeepers in the area, allowing them the opportunity to move their colonies.

Proper communication helps both grower and beekeeper achieve successful pollination while reducing risk to honey bee colonies and the almonds they pollinate. Starting before bloom, growers and beekeepers should agree upon average frame count per colony, date and location of placement and removal, inspection protocol, and payment terms. A contract is a good way to get the discussion going. A pollination contract template can be found at the Project Apis m. website.

“More producers than ever are looking towards cover crops to help them achieve their goals of improving soil quality, pollinator health, and economic viability in the orchard.”

Pesticide Applications

Many of the pesticides used to protect crops can also harm or kill honey bees. GREAT CARE AND CAUTION should be taken when applying crop protection products when bees are present. Always read labels and follow directions. Do not use pesticides with alerts on the label that read “highly toxic to bees,” “toxic to bees,” “residual times” or “extended residual toxicity.” Avoid applying any insecticide during bloom. If a fungicide application is necessary, spray in the evening or at night when bees and pollen are not present. Adjuvants should not be used with fungicides unless stated on the label.¹ As an additional resource, the Almond Board published a quick guide for Honey Bee BMPs for Applicators which can be found at: almonds.com/beeBMPs.

Clean Water for Bees

Adequate access to clean water is an often overlooked requirement for proper bee health. Even on a day with temperatures that may seem cool to us, a colony packed with 40,000–60,000 bees can easily overheat. Bees use evaporative cooling to regulate hive temperatures by

collecting and fanning small water droplets.

Standing water on orchard floors may be contaminated with pesticides which could be harmful to bees. Bees accessing other water sources like residential pools or fountains may create a nuisance. Providing water

is an easy way to manage bees pollinating almonds and avoid complaints from neighbors.

Follow these simple steps to provide clean water for the bees pollinating your crops:

- Place clean water near hives as soon as they arrive and use new containers or ones that have been thoroughly cleaned.
- A proper “landing” area is essential to prevent bees from drowning. This can be achieved with floating cork, marbles, leaves, grass, or straw.
- For buckets or drums, most commercial beekeepers use burlap. Burlap, fastened by clothespins, is draped over the sides allowing water to wick up the sides.
- Change out water if it has been contaminated with pesticides or looks unclean.
- The recommended rate of water is about a half-gallon for each hive for the duration of pollination, which is roughly equal to: One 55-gallon drum for every 100 hives or, one 5 gallon bucket for every 10 hives.

Bee Nutrition & Forage

More producers than ever are looking towards cover crops to help them achieve their goals of improving soil quality, pollinator health, and economic viability in the orchard.

Planting bee forage cover crops is a great way to jump start the colonies before bloom. If cover crops or other floral resources are blooming when bees are placed in the orchard, it triggers a “positive feedback loop,” increasing brood production and foraging behavior (pollination).

Increasing bee health is just one of many benefits cover crops bring to an orchard system. Preliminary data shared by University of California researchers regarding these benefits shows seed mixes high in legumes can boost nitrogen levels in the soil. Orchards with cover crops had 82 more nitrogen lbs/acre in Merced County and 126



Photo by Project Apis m., 2021: Blue Diamond Growers' Water for Bees program distributes water buckets and works with Project Apis m. to educate their growers about providing fresh water for pollinating honey bees.



Photo (L) by Project Apis m., 2021: Almond Grower Ken Rapp stands in one of his orchards that has been planted with PAm. Brassica Mix Cover Crops. (R) Booming cover crops can trigger a “positive feedback loop” in the hive, increasing the number of foragers pollinating.

more nitrogen lbs/acre in Kern County, than orchards without cover crops. The UC study has also found orchards with cover crops to have higher almond yields. Merced County site yields were 225 lbs/acre higher when compared to control orchards with resident vegetation/weeds. Kern County yields were 94 lbs/acre higher when compared to bare soil.

Varroa mites and poor nutrition are two of the biggest health threats honey bees face in modern beekeeping. Beekeepers often look for orchards with supplemental sources of forage for their bees. Planting cover crops that will bloom before and after almonds can help growers attract high-quality beekeepers with healthy hives. Some beekeepers even give growers a discounted rental rate for hives if there is access to supplemental sources of food.

There are some great resources to help growers plant cover crops. The Seeds for Bees® program offers free and subsidized seeds along with technical guidance — Growers can apply for seed between June and November each year: projectapism.org/seeds-for-bees. The Almond Board of California recently published a new Cover Crop Best Management Practices guide for almond growers, an excellent resource: almonds.com/tools-and-resources/grower-tools/pollination-tools.

Honey bees are amazing insects that offer us the important service of pollination. They have become indispensable to our food supply, and especially to commercial almond production. With an estimated 88% of the nation’s bees beginning the year pollinating almonds², there is a unique chance to positively impact and protect their health. ◆

Fan-Jet® Microsprinklers

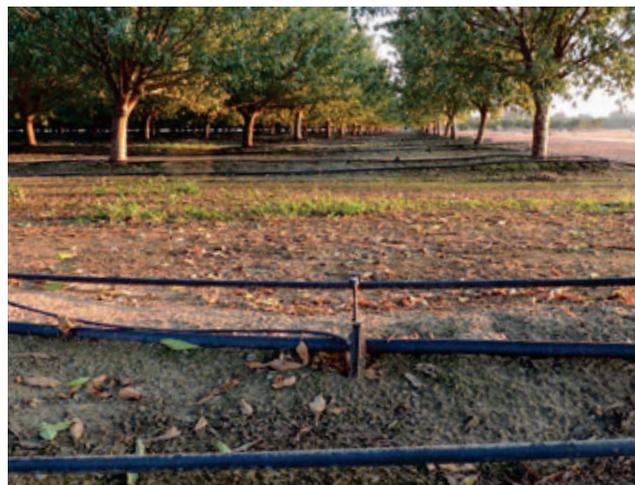
Add a line of Fan-Jets®

Precision Rain - Rain when you want it, where you want it.

Frost Protection - Fan-Jets can help provide frost protection by raising the ambient temperature by 2-3 degrees.

Fan-Jets will allow you to push salts away from the root zone.

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



American Made ★ **Family-Owned**
Tell your dealer you want Fan-Jets.

Scan this code to learn more about Fan-Jet Microsprinklers



BOWSMITH®
Quality & Trust Since 1974

Contact us at 1-800-BOWSMITH
or www.bowsmith.com

Additional Resources:

BMPs for Almond Growers:

projectapism.org/best-management-practices-for-almond-growers

Bee Where:

beewhere.calagpermits.org

Contact for More Information:

Rory Crowley,
Project *Apis m.*
Habitat Program Director
Rory@ProjectApism.org

References:

1. Almond Board of California. Honey Bee Best Management Practices for California Almonds. Modesto, CA
2. Goodrich, B. K., and Durant, J. L. (2020). Going Nuts for More Bees: Factors Influencing California Almond Pollination Fees. *ARE Update*. 24, 5–8.



PROTECT POTTED TREES

To prevent crown gall disease, spray exposed roots just before planting with:

GALLTROL-A

AgBioChem, Inc.

agbiochem.com | 209-606-2737
Available from your local agricultural dealer

GET EVERY NUT



The New Schmeiser V-Blade Roller combines all the advantages of a durable V-Blade with a Rear Roller to provide groove-free smoothing and reduced loose dirt at the row ends.

Contact us for complete details.

Because every nut counts!

T. G. SCHMEISER®

1-800-288-8128 • www.tgschmeiser.com

THE BEE BOX

Moving Bees Into Almonds



Semi load of honey bees arriving in California in January. Photo Credit: Matt Hoepfinger

Most of us know that migratory beekeepers from all across the country move millions of honey bee colonies into the California Central Valley for almond pollination each year. Aside from the phone calls with the brokers or chats with your contracted beekeepers, have you ever thought about the logistical affair in terms of time, energy and resources required for such a large-scale migration before they land in your orchards? These millions of colonies are loaded from locations all throughout the country, many from the dead of winter or from storage facilities, trucked for miles across the land, inspected at border stations, offloaded from semis, then spaced out in the almond orchards by beekeepers and their crews in the few short, and often rainy, weeks before the bloom.



Holding yard in the California Central Valley. Photo credit: Matt Hoepfinger

Semis can haul over 400 honey bee colonies per load and can take three days to get to the Central Valley if coming from the east coast. Some beekeepers overwinter in California so they ship out the previous fall with a little more time to spare, but this practice comes with its own set of drawbacks. When these bees get to California, they are offloaded into holding yards. Because of warm winters, limited forage and high bee density, some beekeepers will feed their bees all through winter in the Central Valley.

Most bees arrive shortly before almond bloom and bees are offloaded into temporary holding yards. When a load arrives the first task is to remove the nets.

Top: Removing nets from a load of hives.
 Bottom: Offloading a semi load of bees into a temporary holding yard. Photo Credit: Matt Hoepfinger



Pallets of bees are left stacked up so it's faster and easier to move them into almonds in the next day or two. If they arrive during the day and it is warm, live bees will be flying everywhere. Entrances are smoked as they are offloaded to keep them in, but it only helps a little.

Migratory beekeepers don't block up hive entrances when they move bees so they often move bees at dusk and dawn. That way it is light enough to see but close enough to dark and/or cool enough that the bees don't fly much. They also move bees at night, but they need to use red lights to see, and since bees do not see in the red spectrum, they remain less active.

The closer it gets to bloom the more hectic it all becomes. Unfortunately, time is in short supply in almonds and although the worst time to move bees is during the middle of a nice day, sometimes it can't be done any other way.





Sierra Gold Nurseries

Top Quality Almond Trees

SG1® • KRYMSK® 86 • BRIGHT'S HYBRID® 5 • HANSEN 536 • VIKING



EXPERIENCED ONSITE FIELD SERVICE TO HELP YOU AT EVERY STEP



PAUL SMITH



BOB FURMIDGE



RANDY FASANI



JOSH BERGMAN



MATTHEW HADDON



CONTACT YOUR LOCAL FIELD REPRESENTATIVE! SIERRAGOLDTREES.COM/REPS • (530) 674-1145

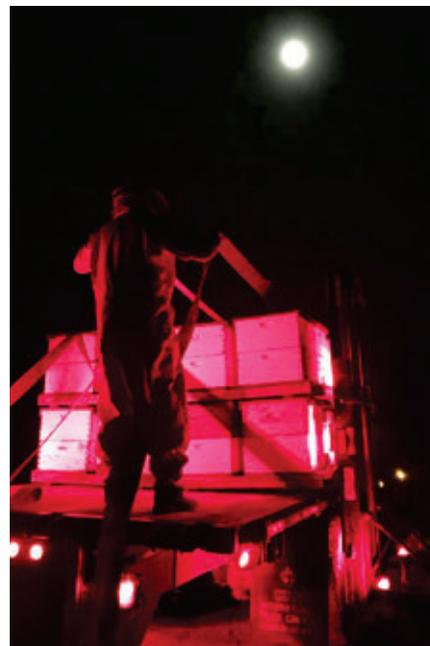
Blue Diamond Growers does not endorse or verify statements made by advertisers within this publication.



Honey Bee colonies in almond orchard during bloom. Photo Credit: Matt Hoepfinger



Muddy orchards. Photo credit: Matt Hoepfinger



Moving bees at night using red spectrum lights. Photo Credit: Matt Hoepfinger



Bees in an almond orchard at sunset. Photo credit: Ben Sallmann

If there has been a lot of rain, then some orchards will be too muddy to move bees in or out. Beekeepers don't get a break though, there is always work around the shop to do, like assembling nucs, making up split boxes, fixing woodenware, preparing treatments, getting totes filled with syrup, cleaning totes and pumps after use, going to the hardware store to get that one specific machine bolt so your syrup pump won't rattle its way off the truck every time you feed and so on and so forth.

Shortly before last petal fall, when pollinating services are no longer needed, the bees are 'released' by the growers. Beekeepers and their crews can then start moving them out. Moving out of almonds can be even more hectic than moving in. Most bees are released around the same time and beekeepers want them out as soon as possible. After almond bloom there are not enough resources to support

the density of bees, so time is of the essence once more for beekeepers who start their season's 'Great Bee Marathon' (see *Almond Facts March/April 2021 Bee Box*). ♦



**Matt Hoepfinger,
CA Tech Transfer Team
Field Specialist**

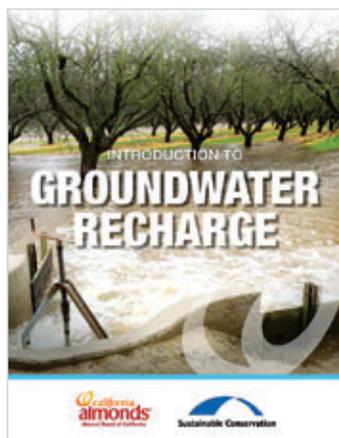
THE ALMOND BOARD

With Continued Shortages, ABC Offers Guide for Growers to Help Water Situation

The chronic shortage of surface water supplies in California combined with the increased regulation of groundwater pumping continues to put many growers in a bind.

Producers have no control over how much rain and snow falls in any given year and is captured behind dozens of dams up and down the state. Increasingly, however, more and more almond growers can play an important part of helping to recharge aquifers that have been tapped during extended periods of drought.

That second scenario — helping to replenish underground water supplies that have been pumped to make up for little or no deliveries — is the focus of an exciting new resource from the Almond Board of California (ABC).



The Introduction to Groundwater Recharge guide was unveiled December at The Almond Conference 2021 in Sacramento. It is intended to be a roadmap for growers interested in learning more about ways to use their dormant winter orchards or specially

designed basins on their property to recharge aquifers.

“Part of the solution is in your hands,” Jesse Roseman, ABC’s Senior Specialist for Ag and Regulatory Affairs, told the audience during a panel discussion on water at the conference. “On-farm recharge (OFR) is one of the most efficient ways to put water back in the ground. We really need the scale of almond orchards. Working land is such a critical piece of this solution and one that farmers can participate in.”

On-farm recharge is defined as “the application of surface water above crop demand in agricultural fields such as almond orchards using existing or supplemental irrigation infrastructure for the purpose of recharging the aquifer.”

For growers who have access to surplus surface water during the winter and the right soil conditions, the guide lays out three ways they can begin to recharge underground water supplies. It also includes real-life results from growers with orchards in the Sacramento and San Joaquin Valleys that participated in trials with positive results over the past decade. Recharge is particularly important in the San Joaquin and Central Valleys, where many underground basins are designated as “critically overdrafted.”

The guide addresses four key questions growers should answer when considering whether OFR can work for them:

- Do I have access to surface water for recharge?
- Is my orchard suitable for recharge?
- What recharge methods are available?
- What orchard management changes are necessary to perform recharge?

The guide discusses the three main ways to implement on-farm recharge:

- **Flooding dormant orchards** – The most thought of method where surface water is applied to orchards during the winter. In many of the test cases, this involved flooding orchards in between storms during the dormant season. Growers must have access to surface supplies during the winter, soils that allow for deep percolation,

and flood irrigation valves and flow meters are necessary. The guide includes common and alternative ways to apply OFR surface water.

- **Reverse tile drains** – This method is considered subsurface groundwater recharge using reverse tile drains. Conventional tile drain systems typically move water out of the soil in fields with high water tables to avoid anoxic conditions that are harmful to crops. The OFR adaptation of reverse tile drains applies excess water below the root zone. The guide says one of the key benefits of a reverse tile drain system is that it does not require saturation of the root zone, thereby allowing water application without impact to growing season considerations. This method can be expensive as pre-planting orchard modifications need to be performed. Ideal soil conditions are sandy loam in the first few feet and a sandy layer below the root zone that extends down to the water table.
- **Recharge basins** – The final OFR method discussed in the guide is recharge basins, which can be built by growers on land adjacent to an orchard or developed on a larger scale by water districts or even Groundwater Sustainability Agencies (GSAs). In the case of growers, OFR basins typically are smaller and serve many functions as flood releases may only be available every few years. Growers may also identify natural depressions or part of their property that has the best recharge characteristics and is less ideal for crop production as mini-basin potential.

The time to act is now

Recharging aquifers will continue to take on greater importance as the Sustainable Groundwater Management Act (SGMA) is implemented over the next 20 years. SGMA divides California into 515 groundwater basins, 94 of which must be locally managed to preserve and replenish aquifers and tackle the problem of land subsidence.

At The Almond Conference 2021 conference session on water, water use expert Scott Hamilton estimated that the San Joaquin Valley is short 3-million-acre feet of water

each year to use for agriculture, domestic and commercial purposes, and environmental uses.

Without a comprehensive strategy to recharge groundwater basins, Hamilton estimated that as many as 1 million acres could be taken out of ag production in the Central Valley, amounting to a \$7 billion annual hit to the economy.

Paul Gosselin, who oversees SGMA as the deputy director of the California Department of Water Resources, said 40% of the state's water comes from underground sources in an average year. In dry years, however, that figure soars to 60%, underscoring the need to protect aquifers even in the face of more frequent droughts.

"Local agencies, growers and farmers must find strategies to reduce groundwater use," said Gosselin, adding the state "must consider the impact of all groundwater users, including farmers."

He and other panelists encouraged almond growers and others in the ag industry to become involved with their local Groundwater Sustainability Agencies.

"The time is now to build that sustainable future," he said. ♦



A flooded orchard at Terranova Ranch during groundwater recharge trials. Credit ABC

TIME TO CONSIDER



Welcome to our new “Time to Consider” contributor, Dr. Brent Holtz!

About Dr. Holtz: *Dr. Brent Holtz has been an Orchard Systems Advisor for the University of California for 28 years, starting in Madera and currently in San Joaquin County. He and his family farmed almonds on their ranches in Modesto and Oakdale. Brent’s parents and grandparents were Blue Diamond Growers. Holtz attended Modesto Junior College, California Polytechnic State University, San Luis Obispo (B.S.), and earned both M.S. and Ph.D. degrees in Plant Pathology from the University of California, Berkeley. His research and education programs are focused on growing almonds in a sustainable manner in the San Joaquin Valley of California. Holtz is currently leading a research effort on whole orchard recycling where removed orchards are ground-up and incorporated into the soil to increase soil organic matter and soil water holding capacity.*

Almond Bloom Diseases

Almond trees are susceptible to blossom and foliar diseases when it rains at bloom time. Many of these diseases can be effectively managed with the use of properly timed fungicides. The decision, however, of when to spray and what fungicide to use can be quite difficult. The Central Valley typically receives a low amount of precipitation, but in many cases, we cannot predict when and how much it will rain. We often receive rain during the bloom period that can result in favorable conditions for several plant pathogenic fungi that can cause several diseases of almond blossoms. The fungi that cause these diseases are usually present in almond orchards, at higher or lower inoculum levels depending on the previous year’s disease incidence and current environmental conditions.

Generally, a good disease management program is based upon a wise choice of fungicides and good timing and coverage. Growers should assess the diseases present in their orchards and select materials carefully. Not all fungicides are equally effective against all diseases. It is good to use more than one kind of fungicide to obtain a broader spectrum of activity. See the on-line publication “Fungicide efficacy and timing for deciduous tree fruit and

nut crops and grapevines” found at the UC IPM website at ipm.ucanr.edu/PDF/PMG/fungicideefficacytiming.pdf. This is the “Bible” of bloom and foliar disease management. Group numbers have been assigned to each fungicide based on its mode of action by the Fungicide Resistance Action Committee (FRAC) (www.frac.info/). Fungicides with a different group number are suitable to alternate in a resistance management program. Resistance to fungicides can develop over time with repeated use of any on FRAC Group, thus, we need to rotate the fungicides we use. When making fungicide applications, keep track of their FRAC numbers; and, if possible, make only one application of each of FRAC numbers 1, 3, 7, 9, 11, and 17 per season. After using one of these fungicides, rotate to another number, don’t use the same number for two consecutive sprays but be sure the fungicide selected has activity against the disease. For fungicides with other FRAC numbers, make no more than two consecutive applications before rotating to a fungicide with a different FRAC number. Under low rainfall forecasts, a single, delayed-bloom application of a newer pre-mixture fungicide such as a FRAC Group 3/11, 3/7, 3/9, or 7/11 will provide “reach back” and protection. A delayed bloom application is



Blue Diamond Growers Foundation Scholarship

available for 2022–2023 School Year



Scholarship Requirements:

- Must currently live in Almond Growing Regions of California
- Must intend to pursue college major in Agriculture related field
- 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, 2022**

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.



apply.mykaleidoscope.com/scholarships/BDG22

done at 40% open flowers. Under high disease pressure, a pink bud (5% open flowers) followed by a full bloom (80% open flowers) application is suggested. Dr. Jim Adaskaveg, has done a great job authoring the 'Fungicide Efficacy' document and has put together a color guide (ucanr.edu/sites/sayalmond/Almond_Publications) that shows the symptoms of different diseases.



*Bacterial Leaf Spot symptoms
Xanthomonas*

Bacterial spot, *Xanthomonas arboricola* pv. *pruni*, was found and identified in the Northern San Joaquin Valley in 2013. Symptoms of infected nuts include the production of an amber colored gum from spots on the hull. We initially recommended trying to reduce inoculum levels

by defoliating leaves with zinc sulfate in the fall, destroying mummies, and spraying fall, dormant, or delayed dormant copper treatments to reduce overwintering inoculum.

More recently, Dr. Adaskaveg has conducted field trials on bacterial spot, primarily on the susceptible 'Fritz' variety that has included dormant and in-season applications. Late-dormant treatments (late January) with copper or copper-mancozeb significantly reduced disease incidence. Early dormant treatments that were applied in mid-November or mid-December were effective in low rainfall years. In-season treatments starting at full bloom through petal fall were most effective when timed around rain events and before temperatures started to increase above 77°F (25°C) in the springtime. Copper treatments were applied by halving the rate with each successive application (e.g., 1, 0.5, 0.25 lbs MCE/A – metallic copper equivalent/acre). No copper phytotoxicity or only minor leaf spotting with no leaf drop was observed after four applications when copper rates were successively reduced. All copper

products significantly reduced disease. Among products evaluated, however, Kocide 3000, Badge X2, Champion2+, and Cuprofix were more effective than Cueva. A single delayed dormant (copper-mancozeb) and a single in-season treatment (copper alone or copper+mancozeb) in mid-March timed before rainfall and warm conditions provided excellent control and was equivalent to five applications (delayed dormant and four applications in 10- to 14-day intervals starting at full bloom) using the same chemicals. For organic growers, Actinovate and Serenade also reduce bacterial spot, although not as effectively as copper products. For better control, Serenade should be mixed with copper. Avoid high-angle sprinkler irrigation; continued wetting of the foliage and fruit into the season will allow bacterial spot to increase in incidence and negate your springtime program.

Every year is different and IPM practices should be followed to determine the best timing and material to spray. Growers often concentrate their control measures on brown rot sprays at first bloom and often neglect their scab and Alternaria sprays that are typically done at two to five weeks after petal fall. Everyone is anxious to spray Nonpareil at pink bud which is the least important time to spray this most disease-resistant variety, yet cultivars Monterey and Carmel are often not sprayed for scab.

Two sprays are made for brown rot control under high disease pressure. The first is usually done at pink bud (5-10% bloom) using a systemic fungicide such as a DMI (FRAC 3) or AP (FRAC 9). The second spray should be done near 80% (full bloom) or seven to ten days after the first spray. This is the most effective brown rot spray program! Depending on the weather, a third spray may be necessary for protecting against jacket rot and green fruit rot caused by *Monilinia*, *Botrytis*, and *Sclerotinia* species. Try to reduce the potential of resistance by using a multi-site compound (such as ziram, chlorothalonil, captan, or mancozeb).

Application techniques are important. Ground applications are better than air, but care must be taken that both are applied correctly. In general, use properly calibrated and

directed nozzles while spraying and maintain a slow ground speed (<2.5 mph). The brown rot fungus (*Monilinia laxa*) attacks the tree by invading the stamens and pistils of the flower when open. From there, the fungus can move into and kill the spur or shoot. Young fruits are also susceptible in early spring and infection of fruit may extend to spurs and shoots. If bloom is extended and the weather is wet and rainy, no more than ten days should elapse between treatments.

The shot hole fungus (*Wilsonomyces carpophilus*) is notoriously more prevalent in wet years. This fungus requires water for all its activities, so periods of extended rainfall create a situation that favors shot hole disease epidemics. The fungus can cause lesions on leaves and fruit, but most of the time it infects the leaves as they emerge from the leaf bud. Leaf infections may lead to defoliation, which usually occurs in early spring. Shot hole infections of young fruit, shortly after they emerge from the jacket, can cause the fruit to drop. As fruits enlarge, shot hole infection results in a lesion, but the fruit no longer falls. About the first of May, when the embryo of the nut begins to grow, the hull becomes resistant to infection and no further lesions develop. Shot hole is usually controlled by fungicide applications after bloom (when leaves emerge after bloom), usually from petal fall to two weeks after petal fall. An IPM strategy for shot hole control is to monitor orchards in the fall and spring for shot hole lesions and fruiting structures. Fruiting structures appear in the center of leaf lesions as small black spots (sporodochia) and can be seen with a hand lens (www.ipm.ucdavis.edu). If fruiting structures are present in leaf lesions in fall,

then a treatment the following spring should be applied at leaf emergence (sometimes this can be concurrent with bloom). If fruiting structures are not present, you can hold off the petal fall spray and monitor leaves in the spring for lesions. As soon as fruiting structures are evident, however, apply a fungicide as long as conditions are conducive to disease development (wet). If fruiting structures are not present, delay treatment until they are.



Weiss McNair
NUT HARVESTING EQUIPMENT

Weiss McNair is proud
to announce the
**2850
Sweeper**



2850 SWEEPER

The 2850 is a “new” Low Profile Self-Propelled Sweeper. Powered by a John Deere 4045-T, Tier 4F, 74 HP engine, with NO DEF FLUID required. The ground drive features two-speed piston motors with double-reduction gear boxes powered by a high efficiency hydraulic system.

With a cab height of only 54 inches, the 2850 is a powerful unit that is 12 inches lower than the standard height air cab sweeper, includes an ergonomic seat, and fully illuminated dash panel switches. The 2850 is the perfect height for high density orchards with very low canopies. The 2850 standard equipment includes rear view camera, large windows for improved visibility, and full heating & air conditioning in a dust-free, pressurized cab. Finally, the cabin has a full gauge display with tachometer, engine temperature, and oil pressure, along with an easy-to-read electronic fuel level display.

For more information or to find a dealer near you, call us at

(530) 891-6214

or visit our website at

weissmcnair.com

100 Loren Avenue, Chico, CA 95928
(530) 891-6214 | Fax (530) 891-5905 | www.weissmcnair.com

Scab (*Venturia carpophila*; formerly *Cladosporium carpophilum* or *Fusicladium carpophilum*) was effectively controlled with the strobilurin or QoI (QoI-quinone outside inhibitor) fungicides (Abound, Gem), but resistance to these fungicides has developed and we now recommend not using FRAC Group 11 fungicides exclusively unless in pre-mixtures or tank mixtures and in orchards without known resistance. Dr. Adaskaveg has developed a three-spray strategy for scab control that includes a delayed dormant application of copper-oil or chlorothalonil-oil, a two-week after petal fall spray that includes chlorothalonil (Echo, Bravo, Equus; FRAC M5), and a five-week after petal fall spray that includes Captan (FRAC M4), Ziram (FRAC M3), or pre-mixtures of DMI (FRAC 3), SDHI (FRAC 7), or QoI (FRAC 11) fungicides. Ph-D (FRAC 19) can also be used in tank mixtures. Recent work by Dr. Adaskaveg has also shown that delayed dormant applications of chlorothalonil and oil are even better than copper and oil at reducing scab inoculum well into the spring season. This will reduce in-season sprays and, if *Alternaria* leaf spot is also a problem, the in-season sprays for scab and *Alternaria* will be aligned (late spring). *Venturia* (i.e., *Fusicladium*) causes greasy dark spots on fruit, leaves, and green shoots. The shoot lesions are the overwintering sites for the fungus and the source of new spores in the spring. The disease causes no apparent damage to the fruit, but leaves may fall prematurely.

Rust (*Tranzschelia discolor*) can also cause defoliation. Both rust and scab are favored by high humidity and are usually worse in years with late spring rains. Irrigation practices that create humid orchard conditions for long periods of time favor both diseases. Like scab, rust

CERTIFIED PREMIUM
POLLEN
 Setting the standard in pollen since 1933

ALMOND POLLEN

Leading the industry in commercial pollination of nut and tree fruit crops. Committed to high-quality pollen, purity, viability, and certainty of pollen alleles.

Beehive Inserts **Scumby Pollen Applicator** **Precision Pollination System™**

Contact us today to see how we can serve your operation.

FIRMAN Pollen™ **f in @** 

509-452-8063 | 800-322-8852
FirmanPollen.com

FLORY

LEADING THE WAY IN NEW TECHNOLOGY
PRESENTING THE **MULTI-PURPOSE...**

FLORY ST14 SHUTTLE TRUK



Standard features include...

- Next generation air-cab with 180° swivel seat
- Updated controls and operator comfort
- ½" Shatter resistant orchard glass
- Service brake for quick powerful stopping
- Cruise control for consistent ground speed
- LED headlights and tail lights with high-low beam for improved road safety
- Easy engine and DEF access
- Rubber isolated cooling package with reversing hydraulic fan
- Service friendly

YEAR ROUND USES



Air-O-Fan Sprayer



Flat Bed



Nelson Hardie Sprayer



Herbicide Sprayer

TRADITION - INTEGRITY - SERVICE - CRAFTSMANSHIP
Since 1936

Flory Industries, Salida, CA 95368 USA 209-545-1167

See all our products at goflory.com

Watch the video on ShuttleTruk.com



GO CLEAN
GO EFFICIENT
GO FLORY



goflory.com

Call Your Local Dealer Today!

usually appears in late spring or early summer. The fungus attacks leaves but not fruit. On leaves, it produces small, bright yellow angular spots on the upper leaf surface, and reddish orange pustules on the lower leaf surface. The first fungicide application for rust control should take place as soon as disease symptoms are first observed in spring or early summer (e.g., if 1 out of 100 randomly collected leaves in a block or 1% of the leaves show symptoms, then an application is recommended). Treatments could be integrated with an *Alternaria* control program. In orchards with a history of rust, applications should be made before symptoms are observed. Maneb was a highly effective treatment (registration recently canceled) but is now replaced with mancozeb (Manzate). This fungicide and chlorothalonil (Bravo, Equus, Echo) can be applied until five weeks after petal fall and followed up again with another fungicide 10 weeks after petal fall. Usually, only one to two applications of FRAC 3 and 11 fungicides are necessary for a high level of disease control, but sulfur may need multiple applications due to its short residual activity.

Alternaria leaf spot is becoming more problematic particularly in humid locations in the San Joaquin Valley; I have observed severe infections in humid pockets in Kern County and in the northern Sacramento Valley. *Alternaria* first appears in early summer on exposed leaves and is usually more severe on open-trained and spreading-canopy trees planted in an east/west direction. *Alternaria* can cause large lesions on leaves and can cause severe defoliation. If your orchard is in a problem area or monitoring indicates the presence of *Alternaria*, begin late-spring treatments about mid-April (five weeks after petal fall) followed by as many as three or more late-spring applications. Dr. Adaskaveg recommends using iprodione (Rovral, Nevado) in the southern almond growing areas where it warms up sooner than central and northern areas followed by other fungicides with differing modes of action. Dr. Adaskaveg has successfully used an *Alternaria* Disease Severity Model (DSV) to predict one to three infection periods from May to late June or early July. Because *Alternaria* resistance to QoI has been documented, do not use FRAC 11 fungicides in these orchards.

An integrated control program that also includes reducing orchard humidity is critical: this could include planting orchards north-south orientation to allow for prevailing wind movement through the orchard, orchard hedging to increase air movement through the canopy, adding gypsum to improve water penetration, and monitoring leaf stem water potentials to avoid over-irrigation. Partial deficit irrigation may be desirable in *Alternaria* plagued orchards.

An extremely damaging fungal disease, anthracnose (*Colletotrichum acutatum*) can be severe in warm, wet springs, with average daily temperatures above 63°F. Usually, we don't see anthracnose commonly in the San Joaquin Valley. On fruit, anthracnose can cause deep crater-like lesions; the affected area turns a rusty-reddish



Amber gum from hull spots

brown, older fruits often gum profusely, and the nut meat is usually destroyed. The fungus can also infect flowers during warm, wet rains and is reported to invade the wood and the branches upon which infected fruits reside weaken and die. In addition to destroying the crop, long-term damage and weakening of the tree may occur. Usually with warming temperatures in April and May, a good scab control program will usually control or reduce anthracnose. Orchards that have a history of anthracnose should be treated during bloom, starting even at pink bud (your brown rot spray to protect blossoms), to help reduce inoculum build-up. Ideal conditions for disease are warm rains and protecting trees before every rain is necessary for ideal control. In orchards that have a history of anthracnose, apply fungicide sprays every 10 to 14 days if rains persist after bloom. Late spring rains may necessitate additional applications into May. Alternate fungicides, as discussed, using FRAC numbers and rotating materials. Pruning out dead, infected wood reduces inoculum. If sprinkler irrigation is practiced, use low-angle nozzles to prevent the tree canopy from being wetted by sprinklers. Fortunately, we have new fungicides that were

recently registered such as mefenftrifluconazole (Cevya) and premixtures such as difenoconazole-pydiflumetofen (Miravis Duo) that have built-in resistance management mechanisms.

Frost can occur, so keep vegetation mowed and avoid working the soil from bloom through the end of March. The UC Almond Production Manual has a chart that displays temperatures at which cold induced damage can occur for different varieties. Freezes can occur through early April, so be prepared to run water if you can. Bacterial blast and canker develop under cold, wet environments. In 2020 there was an increased incidence of blast, especially in northern California almond production areas. Blast symptoms are often confused with brown rot blossom blight. The difference is that blossom blight often has tan to brown fungal sporulation on the dead flower parts. The Almond Alliance of California and Dr. Adaskaveg have requested the renewal of the emergency registration (Section-18) for kasugamycin (Kasumin) for February–April 2022, like the previous two years. A full registration on almond is pending for early 2022. Kasugamycin should be applied before frost events, especially on varieties susceptible to blast such as

Independence, Aldrich, Monterey, and Fritz. Frost or frozen water causes tissue expansion and injury that is subsequently colonized by the ubiquitous epiphytic bacterium *Pseudomonas syringae*. In California, the pathogen is mostly resistant to copper. Kasugamycin is compatible with fungicides, and tank mixtures can be used during bloom and petal fall if cold wet weather is forecasted to minimize application costs. Integrated strategies are best for managing diseases like bacterial blast, thus, frost protection irrigation and the use of kasugamycin should be highly effective.

Good Luck and Stay Safe!



**Brent Holtz, Ph.D.,
Orchard Systems Advisor,
University of California
Cooperative Extension
in San Joaquin County
baholtz@ucanr.edu**

Stick Removal Cart



BOSP 816 Cart

Rear Discharge Door



SC 816 Shuttle Cart

BO 816 Bank Out Cart



BO 816 Bank Out Cart

Front Discharge Door



Front Discharge Door

Front Discharge Door



Front Discharge Door

2018 HS Honda Conveyor



2018 HS Honda Conveyor

4024 D Tier 4 Diesel Conveyor



4024 D Tier 4 Diesel Conveyor

All Bankouts and Shuttle Carts are available with dirt chain!



BD 8105 Nut Cart



KCM 614G Spreader with Bander Flinger



KCI
KINGSBURG CULTIVATOR, INC.
Manufacturer of Agricultural Farm and Processing Equipment

KCI-MFG 559.897.3662
Toll free 1.800.300.2220
Fax 559.897.0201
40190 Rd 36 Kingsburg CA 93631-9621
e-mail sales@kci-mfg.com
www.kci-mfg.com

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

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

Call (209) 604-7444

FOR SALE

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

Call (209) 599-7108

FOR SALE

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

Contact (209) 652-5164

FOR SALE

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

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

FOR SALE

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

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

Please call (209) 969-0526

FOR SALE

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

Call (559) 485-9496

FOR SALE

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

Call or Text (209) 605-2603.

Manteca area.

FOR SALE

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

Call (559) 268-3087

FOR SALE

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

Antique 1946 OS6 International Tractor. In running condition; \$900.

Call 209 658-4521

FOR SALE

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

Call (209) 620-4924

FOR SALE

2008 8 Channel Satake Ultrascan.
\$60,000

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

Please contact Nina at:
(209) 609-6689

FOR SALE

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

FOR SALE

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

Contact Gale Langum at:
(209) 612-4830

FOR SALE

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

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

FOR SALE

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

Contact (209) 358-1759

FOR SALE

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

Call (209) 537-9491. Ceres.

FOR SALE

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

Call (209) 847-3196

FOR SALE

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

Contact Joe at (209) 404-3326

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

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

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

FOR SALE

10' Verismo mower. Good condition. New liner. \$5600.

Call (209) 658-4521.



BLUE DIAMOND GROWERS

1802 C Street
Sacramento, CA 95811

PRESORT
STANDARD
U.S. POSTAGE
PAID
SACRAMENTO, CA
PERMIT NO. 694



STRONG ON PARTS AND SERVICE

ORCHARD MACHINERY CORPORATION
www.shakermaker.com

TREE SEEKER
PAT. # 8,608,834 7,797,471 9,485,912



Shockwave Sprint
SIDE-MOUNT SHAKER



Shockwave 3WMB
FRONT-MOUNT SHAKER



Hedgehog
3000-Series HEDGER



Aftershock AR-400
SIDE-DUMP SHUTTLE



Brush Hog
HYDRAULIC RAKE



Aftershock CC-350LP
LOW PROFILE CONVEYOR CART



Aftershock SD-36
SIDE-DUMP FIELD ELEVATOR



E-LIMB-INATOR
SHREDDER

Yuba City	Orland	Modesto	Firebaugh	Tulare	Shafter
2700 Colusa Hwy	6480-A Road 27	4207 E. Ceres Rd	1529 N Street, Ste B	5200 Tex Dr	30715 San Diego St.
Yuba City, CA	Orland, CA	Ceres, CA	Firebaugh, CA	Tulare, CA	Shafter, CA
530-673-2822	530-865-1006	209-669-2522	559-659-0200	559-688-2081	661-746-7232



Follow us!
@OMCshakermaker