Go Nuts for The Nut Job 2

Farm-to-City Girl

Almond Love
Dormant oil can do a good job in controlling pests but **only** if it spreads into all the hiding places where insects and disease overwinter. But dormant oil is not a particularly good spreader or penetrant so many areas on the trees go untreated — resulting in higher pest pressure come spring. VINTRE®, specially formulated to be compatible with oil-based pesticides and containing patented OROWET® technology, is a superior wetter and penetrant that flows the dormant oil into the cracks and crevices on the bark surface to improve coverage and boost pest control.

**BARK COVERAGE STUDY**

**OIL ALONE**

440 Crop Oil  
(1.5 g/a)  
+ Phosphorescent Dye  

**Spray Volume**  
(100g/a)

**RESULTS**  
Incomplete coverage allows hiding places for pests

![Almond Bark](image1)
![Almond Bark](image2)
![Almond Bark Closeup](image3)
![Almond Bark Closeup](image4)

**VINTRE + OIL**

440 Crop Oil  
(1.5 g/a)  
+ **VINTRE**  
(1qt/100g)  
+ Phosphorescent Dye  

**Spray Volume**  
(100g/a)

**RESULTS**  
Complete coverage gives superior pest control

![Almond Bark](image5)
![Almond Bark](image6)
![Almond Bark Closeup](image7)
![Almond Bark Closeup](image8)

For more information visit www.oroagriusa.com  
or contact your local Oro Agri representative.
Features

6 President’s Corner
President and CEO Mark Jansen highlights Blue Diamond’s ability to adapt to market changes while setting production records during the 2016 crop year.

10 Almond Flour Capacity Expands with New Production Line
Blue Diamond increased its almond flour production capacity with a new processing line set within the recently finished addition to the Salida facility.

12 Blue Diamond Goes Nuts for The Nut Job 2
Blue Diamond Growers teamed up with the creators, characters and fellow nut enthusiasts in The Nut Job 2: Nutty by Nature in their mission to create fun and memorable snacking moments for the whole family to enjoy.

28 Farm-to-City: An Interview with Tricia Paoluccio
Tricia Paoluccio knows it’s a privilege to be an almond farmer and Blue Diamond grower-owner. For more than 40 years her family knows what is like to work on the land, grow a crop and be responsible caretakers.

ON THE COVER:
Blue Diamond goes nuts for The Nut Job 2: Nutty By Nature. The movie features characters enjoying a can of Blue Diamond almonds.
Blue Diamond, the world’s largest processor and marketer of almonds, exports to 90 countries.

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Ensure season-long control of pre- and post-emergent weeds

**WEEDS REDUCE TREE HEALTH AND CROP QUALITY.**

Weeds compete with trees and vines for nutrients, water and light and can impact yield and hinder harvesting practices. Weeds can even compete with target plants for uptake of insecticides and other chemicals, making the crop more susceptible to insects and disease.

While cultural and mechanical practices can provide some help in managing weed pressures, most growers utilize herbicides to deal with major threats. Whether or not resistant weeds are currently present, **having an integrated approach to weed control can mean the difference to bottom lines.**

Alion® and Rely® 280 weed program from Bayer are complementary pre- and post-emergent herbicides for tree nuts, grapes and citrus that effectively eliminate tough grass and broadleaf weeds with long-lasting residual control and excellent crop safety. Together, Alion and Rely offer versatile application approaches to ensure you start and stay weed-free.

Key weeds present in orchards and vineyards have been found to be resistant to glyphosate. A best practice to slow down weed resistance to herbicides includes using multiple effective modes of action in your pre- and post-emergent herbicide sprays.

**WEEDS RESISTANT TO GLYPHOSATE**

- Horseweed
- Hairy Fleabane
- Jungle Rice
- Russian Thistle

**CROP SAFETY**

Keep crop safety in mind when selecting a weed management program. Choose pre- and post-emergent herbicides that provide excellent season-long weed control without impact on roots, fruit or plant vigor.

**UNIVERSITY OF CALIFORNIA EXTENSION RESEARCH SHOWS:**

Using Alion® and Rely® together results in season-long weed control

- **JUNGLE RICE CONTROL**
  - 100%
  - Application included Alion 3 oz. + Rely + Roundup®
  - University Trial for Jungle Rice Control by Brad Hanson, UC Statewide Weed Scientist in Chico, CA, 2014

- **HAIRY FLEABANE CONTROL**
  - 99%
  - Application included Alion 3.5 oz. + Rely
  - University Trial for Hairy Fleabane and Ryegrass Control by Brad Hanson, UC IPM, Arbuckle, CA, 2015

- **RYEGRAASS CONTROL**
  - 90%
  - Application included Alion 5 oz. + Rely

Learn more at Alion-RelyWeedProgram.com
Sometimes it’s good to be reminded just what it means to be a member of the Blue Diamond Growers cooperative.

When describing an almond, we use words such as “versatility” and “quality.” Remarkably, we use those same words to describe Blue Diamond. We’ve proven — especially over the last year — our ability to adapt to changes in the market and on our farms without sacrificing quality.

I am pleased to report that the 2016 crop year was an outstanding one. After years of drought, the 2016 California almond crop of 2.135 billion pounds signaled a return to record-setting production. The 2016 marketing year also produced a more stable marketplace, providing customers around the world with the opportunity to fulfill their needs while generating profitable returns for California’s growers. California shipments set a new record of 2.1 billion pounds, a growth rate of 16 percent over the prior year, consuming the entire 2016 crop.

Even with the difficult conditions endured during the 2017 bloom, California is forecasted to bring in 2.25 billion pounds, a new record. Given the growing California almond acreage and more normal rainfall, we anticipate continued record production.

We have actively prepared Blue Diamond to handle the increasing supply of almonds. Our innovation platforms are set to produce exciting new applications that will provide consumers with tasty and healthful new food options, delivering the benefits of almonds to their daily diet. We have stepped up our marketing campaigns, which have increased the number of households consuming your Blue Diamond products. Our industry is growing, and your cooperative is leading the way.

As we celebrate the delivery of another record crop year, we are thankful for our recent investments in our brand-building advertising and margin enhancements. I look forward to discussing this with you in more detail at our annual Blue Diamond Growers meeting on November 15 at the Modesto Centre Plaza. Please mark your calendars to come early to the convention to attend seminars, walk the exhibit hall and visit with our team who will share this year’s success with you!

Mark Jansen
President & CEO

Mark Jansen

The 2016 California almond crop of 2.135 billion pounds signaled a return to record-setting production.

“ 
### Blue Diamond 2016 Crop Returns

<table>
<thead>
<tr>
<th>Variety</th>
<th>Overall Average</th>
<th>Average of High Quality</th>
<th>Maximum Possible</th>
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<td>Nonpareil &amp; Sonora Inshell</td>
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<td>$0.85</td>
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- **Vice-Chairman**
- **Ex-Officio**
- **Director**
- **Appointed (Member-at-Large)**
- **ABA**
- **Almond Board Alternate**
- **ABD**
- **Almond Board Director**
**Blue Diamond Expands Almond Flour Capacity with New Production Line**

The demand for almond flour is at an all-time high and continuing to grow. *Blue Diamond* increased its almond flour production capacity with a new processing line set within the recently finished addition to the Salida facility. The flour line was in full operation beginning early August.

The design of *Blue Diamond*’s new almond flour production line is the first of its kind, with several advantages over previous system designs. The new system is optimized for efficiency, consistent quality and cost-effectiveness.

In addition, several significant technologies help *Blue Diamond* deliver the highest level of food safety assurance, including the company’s almond segregation process. A custom-designed enclosed conveyance system transfers almonds from one process to another, segregating raw almonds from pasteurized forms.

“*Blue Diamond* is leading the industry in setting food safety and product quality standards,” said Bill Morecraft, senior vice president for the *Blue Diamond Global Ingredients* Division. “As demonstrated by the new flour processing line, we’re constantly improving our operations with new technologies and updated engineering. Our premium-quality almond products reflect the industry best practices we’ve established in harvesting, storing and processing.”

The additional capacity will serve national and global customers purchasing almond flour as an ingredient for finished goods, as well as those who repackage for retail distribution.

**Blue Diamond’s new almond flour production line is the first of its kind.**

---

**SAVE THE DATE**

**107th Blue Diamond Growers Annual Member Meeting**

Wednesday, November 15, 2017

Modesto Centre Plaza, 10th & K Streets
(Adjacent to the Modesto Doubletree Hotel)

Join us for cultural seminars, lively exhibits, a membership luncheon and business meeting, all celebrating the continued success of *Blue Diamond* and its members.

Watch for more information in the following months.

**THANK YOU TO OUR SPONSORS!**

- Bank of America
- Duarte Nursery
- Farm Credit
- Flory
- Syngenta
- SunWorks
Team *Blue Diamond* Takes in Solar Eclipse

From Sacramento to Turlock, *Blue Diamond* team members stepped outside around 10:00 a.m. on Monday, August 21, to witness a historic solar eclipse. This was the first time a solar eclipse had been visible in the U.S. mainland since 1979. California may not have been in the path of totality, but it was still a stunning sight to see.

Looking directly at the sun can lead to permanent eye damage or blindness, so viewing a solar eclipse requires special glasses or indirect viewing methods. Thanks to the Almond Innovation Center team, those who wanted to safely view the eclipse were provided Do-It-Yourself instructions for creating a pinhole projector. With just a few simple supplies — and an empty carton of Almond Breeze — a pinhole projector passes sunlight through a small opening and projects an image of the sun.

“There are several ways to safely view the eclipse. One of the easiest is a pinhole project,” said Molly Giger, *Blue Diamond* technical and regulatory specialist. “It turns out that *Blue Diamond* Almond Breeze cartons make the perfect pinhole projectors!”

*Blue Diamond* team members shared photos of their solar eclipse moments. 

---

**Back to Your Roots**

**Using the new Mid-Row Ripper from Schmeiser**

Manage your Root Zone using the new Mid-Row Ripper.
- 4X Better Soil Breakout
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- Superior Mixing of Amendments in the Root Zone

The twin ripper is equipped with patented vibrating winged shanks. Soil structure breakout is unmatched by any conventional ripper.

“It’s the new best way for planting orchards and vineyards, period.”
- John Duarte of Duarte Nursery

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Blue Diamond Growers teamed up with the creators, characters and fellow nut enthusiasts in The Nut Job 2: Nutty by Nature in their mission to create fun and memorable snacking moments for the whole family to enjoy. To celebrate the movie sequel release of The Nut Job 2, Blue Diamond offered consumers the chance to watch the animated action-packed comedy for free when they bought any two 6 oz. cans of Blue Diamond almonds.

"The Nut Job 2 is the perfect film for parents and kids to enjoy a special moment together," said Maya Erwin, brand marketing director for Blue Diamond. “Blue Diamond almonds are the perfect snack to accompany such a nutty movie. Our products are a measure of care and consistency, and we always strive to provide families with the highest quality almonds to satisfy snack cravings and energize their day.”

An animated movie sequel to The Nut Job, which was released in 2014, The Nut Job 2 brought back Surly Squirrel and the gang once again in Oakton, where the evil mayor has decided to bulldoze Liberty Park and build a dangerous amusement park in its place. Surly and his ragtag group of animal friends band together to save their home, defeat the mayor and take back the park. The movie also features a scene showing the beloved characters enjoying a can of Blue Diamond Smokehouse Almonds.

The Nut Job 2 hit theaters on August 11, 2017 and includes the incredible voice talent of Will Arnett, Katherine Heigl, Jackie Chan, and Maya Rudolph.
FORTIFIED

THAT’S HOW ALMONDS FEEL WITH MOVENTO®

Movento® insecticide is the only foliar application with downward movement within the tree to protect roots by suppressing nematodes. With Movento, trees will show improved vigor and produce high yields year after year.

For more information, contact your retailer or Bayer representative or visit www.Movento.us.

© 2017 Bayer CropScience LP, 2 TW Alexander Drive, Research Triangle Park, NC 27709. Always read and follow label instructions. Bayer, the Bayer Cross, and Movento are registered trademarks of Bayer. For additional product information, call toll-free 1-866-99-BAYER (1-866-999-2937) or visit our website at www.CropScience.Bayer.us.
Summer Internship Program Connects Students with Blue Diamond Operations

While other students were enjoying their summer vacation, some spent their time learning about Blue Diamond’s operations. The cooperative’s Global Manufacturing Operations team welcomed five interns who were placed in the Sacramento and Turlock sites.

For eleven weeks, these students from California Polytechnic University and the University of California Davis, had the opportunity to take on a challenging project and gain hands-on experience, decision-making and professional growth. Some of the projects included:

- Optimizing the movement and storage of cook bins on the new standup bag line;
- Organizing Preventive Maintenance (PM) training in iMaint;
- Reducing Sanitation downtime by 10%;
- Reducing the number of 1/8 skins or greater at packout; and
- Reducing the number of steps required to create pallet tags.

The interns came into the program with majors ranging from industrial engineering to industrial technology.

“At Blue Diamond Growers, we believe that a summer internship is a great way for a college student to gain knowledge about Operations and real-world business,” said Julie Newmarch, manager of talent acquisition for Blue Diamond. “We’re looking for bright students that are interested in a manufacturing environment, learning new ideas and perspectives. Our program is designed to provide the intern with an opportunity to potentially transition into a full-time job opportunity after graduation.”

Quotes from Summer 2017 Interns:

“This Summer I was fortunate to be able to be part of the internship program at Blue Diamond Growers in Turlock, CA as an Operations Intern. This internship program gave me valuable hands-on experience by working at a manufacturing environment. It also taught me the importance of teamwork and having great communication skills. I could apply concepts learned in a classroom to real situations. Finally, it gave me the opportunity of working with bright people that were always supportive and willing to help me succeed”.

— J. COLMENARES

“Blue Diamond is a really unique company in the way they care for their employees. I really enjoyed working here as an intern. The project assigned to me was challenging, but I was given the appropriate resources to help me meet my goal. But what I will remember most about the company are the Blue Diamond employees. Everyone here is friendly and helpful. I admire this company’s open-door policy. I felt like it helped me complete my project and get to know specific individuals within the company because I was not intimidated to talk to anyone or scared to ask questions.”

— K. FITZGERALD

“My internship with Blue Diamond gave me hands-on experience working on meaningful projects that improved manufacturing operations.”

— J. SMITH

“Blue Diamond gave me an amazing summer! I learned so many skills I couldn’t have learned anywhere else and I increased my confidence in my career choices. I feel like I have gained mentors from Blue Diamond and I’m so grateful to have met so many amazing people.”

— D. ODDONE
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PRESENTING THE MULTI-PURPOSE...

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- Updated controls and operator comfort
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- Rubber isolated cooling package with reversing hydraulic fan
- Service friendly

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What’s the State of the Sea Freight Industry?

Fiscal year 2017 was a busy but eventful year in the sea freight industry. There were work stoppages at Spanish ports, Hanjin Shipping Company declared bankruptcy, pending contract negotiations between the Pacific Maritime Association (PMA) and the International Longshore and Warehouse Union (ILWU) along with mergers and acquisition that impacted all major steamship lines. As we enter another year there is still ambiguity regarding the current state of the sea freight industry.

The volatility experienced can be divided into two areas of focus: port operations and carrier stability. In July of 2017 the Pacific Maritime Association and the International Longshore and Warehouse Union came to an agreement that has extended the recent stability we have seen in each of the 29 western coast ports until 2022. This comes as a sigh of relief for not only Blue Diamond, but for importers and exporters throughout the world as many recall the congestion associated with the work slow-downs of years past. During those periods, all cargo owners experienced delayed shipments and unfortunately saw a negative financial impact.

As we anxiously awaited the PMA & ILWU contract negotiations to conclude, there were mergers, acquisitions, consolidations and alliance changes occurring with nearly every major ocean carrier in the world. The catalyst for this activity was the bankruptcy of Hanjin, a Korean-based ocean carrier. This put a spotlight on a struggling industry and provided insight as to why the mergers, acquisitions, and consolidations were necessary. Also, the recent alliance changes further highlighted the need for the sea freight industry to find a solution to an imbalance in capacity and plunging market rates because of an oversupply of capacity on vessels going primarily into Asia. In 2016, it has been estimated that the steamship companies lost over 5 billion dollars. The industry is now in an era where those that were once competitors are now relying on each other to become more efficient.

Blue Diamond is optimistic, but unsure of the effects of these changes to the industry. We anticipate over the next few years we will see a market equilibrium in the sea freight industry that will ultimately impact all importers and exporters. A critical part of our success is the success of the steamship carriers and sea freight industry. The criticality of our partners success has led Blue Diamond to take an active role in partnering with our selected carriers and creating new relationships throughout the industry. These partnerships, and our export strategy of diversification to mitigate risk, will give Blue Diamond the ability to adapt to the changing landscape of the sea freight industry and allow the cooperative to continue to add value to the grower-owners that entrust us with their crops.
NEMATODES:
ROOT HEALTH & TREE LONGEVITY THREAT
[GROWERS CAN’T SEE]

UNSEEN BUT FIERCE ON ROOT HEALTH
Nematodes, microscopic roundworms barely visible to the naked eye, pose a serious problem for walnut and almond growers. Even with proper sanitation and fumigation practices, nematodes can still become an issue after setting new trees. Nematode populations can build up in the soil, attack tree roots and impact overall tree health.

BEST PRACTICES FOR TREATING NEMATODES

1. Sample for nematodes to determine the presence, species and number of nematodes through an experienced lab.

2. If possible, fumigate the soil prior to planting new trees. This will reduce the number of nematodes initially, but will offer only a temporary solution.

3. Applications of Movento® in established orchards resulted in a reduction of nematode populations. Movento does offer a nematode management tool that can easily be incorporated into a tree nut grower’s cultural practices.

Two-year trials show
MOVENTO® SUPPRESSES RING NEMATODES BY 85%

RESEARCH SHOWS
Applications of Movento® in established orchards helped result in:
85% SUPPRESSION OF RING NEMATODES
59% SUPPRESSION OF ROOT LESION NEMATODES

Two-year trials show Movento® suppressed ring nematodes in almonds.

EXPERTS SAY
“Established orchards saw better yield where Movento® was used to treat for high nematode pressure. The tree has a lot of vigor and doesn’t stress as bad.”

According to Tim Weststeyn, a pest control advisor (PCA) with Crop Production Services in Vernalis, CA. He consults on 4,000 to 5,000 acres of tree nuts and is in his third year of treating established almond trees with Movento for nematode management.

LEARN MORE AT MOVENTO.US.
Almond Love

I am Bonnie Taub-Dix, a registered dietitian nutritionist, specializing in helping everyone from big food companies to private clients understand how to make nutritious and delicious coexist on the same plate. I have always believed that food provides one of the pleasures in life and so does looking and feeling your best. Whether I’m writing a story, giving a presentation or being interviewed for TV, radio, magazines or the internet, my message has been consistent: all foods can fit into a healthy diet as long as you keep balance in mind.

What you should also know is that I love to go food shopping. In fact, I even wrote a book called, Read It Before You Eat It, to help people navigate the aisles of any store and decode confusing food labels. Moreover, almonds are highlighted within my book and Almond Board of California sponsored my first book tour! I have been a fan of Blue Diamond almonds and Almond Breeze almondmilk for as long as I could remember, and in our house, we enjoy almonds in all forms including whole, sliced, slivered and crushed almonds along with almond butter.

Many of you already have a pretty good idea about all the healthy benefits of almonds, but I think there’s a great deal of information about why almonds make your body smile, both inside and out. Here’s more information about almonds and almondmilk to share with others:

Almonds
Almonds contain a wealth of nutrients including calcium, vitamins E and B-6, riboflavin, niacin, thiamin, pantothenic acid and folate. These fiber-rich nuts have been shown to improve gut health by affecting the bacteria in the colon. Almonds are also a source of protein and heart-healthy fats, which have been shown to reduce “bad” LDL cholesterol. In a study in the Journal of the American Heart Association, researchers put adults who had elevated cholesterol but were otherwise healthy on a diet for several weeks. Half the group got 1.5 ounces of almonds as a daily snack while the other group ate the exact same diet, except with muffins (with the same number of calories as the almonds) as a snack instead. Compared to the muffin eaters, the almond eaters reduced their LDL cholesterol, belly fat and waist circumference, suggesting that almonds crushed high-carb snacks in preventing heart disease and diabetes. By the way, if you do want to make muffins and you are gluten-sensitive, almond flour is naturally gluten-free. And if you want to make muffins that serve you up the benefits of almonds and almondmilk, you’ll love my Banana Almond Muffins. The recipe is so easy to make...even my kids make them for me on Mother’s Day!

Almondmilk
Though almondmilk has taken over the refrigerator section of the supermarket, its presence in the middle aisles allows consumers to stock up and never run out of this beverage with benefits. Almondmilk, for example, is an excellent source of calcium, vitamin D and vitamin E and it’s a good source of vitamin A and fiber. Moreover, the unsweetened almondmilk varieties are low in sugar content and have far fewer calories than other options. Almondmilk — a creamy, tasty, calcium-enriched alternative to dairy milk — is also the perfect choice for those who are troubled with lactose intolerance. Most of all, almondmilk’s
soaring popularity has arisen because people just simply love the taste...even if they're perfectly healthy.

Almondmilk has established itself as a beverage, but people are just learning about the wide range of ways it can be woven into all sorts of recipes. Almondmilk can be enjoyed as an ingredient in soups and stews, baked in muffins, or chilled in smoothies. The substitution of almondmilk instead of using less healthy ingredients, like cream, can be a great way to improve the diets of everyone in the family without compromising flavor.

Keep in mind that the word, “diet” actually means “weigh of life” so you shouldn’t have to change your life to fit into your diet. In fact, the best diet is one that you can fit into your life. Almonds and almondmilk can deliciously be included everyday for adults and children and could be a part of enjoying an even better life. ✿

Bonnie Taub-Dix, Registered Dietitian Nutritionist

Banana-Almond Bread/Muffins

Yield is either 2 loaves or 24 muffins.

INGREDIENTS

- 2 cups whole wheat pastry flour
- 1½ cups all-purpose flour
- 1 Tablespoon baking powder
- 2 teaspoons baking soda
- 1 teaspoon salt
- 1 teaspoon ground cinnamon
- ¾ cup granulated sugar
- 4 egg whites
- ½ cup extra light olive oil or avocado oil
- ½ cup plain Greek yogurt
- 2 teaspoons pure vanilla extract
- 2 large eggs
- ¼ cup Original Almond Breeze almondmilk
- 4 ripe bananas, mashed well
- ½ cup slivered almonds
- ½ cup dark chocolate chips
- Cooking spray

DIRECTIONS

Preheat oven to 350° degrees.

1. Spoon flours into dry measuring cups and level with a knife.

2. Whisk together with the next 4 ingredients (through cinnamon) in a large bowl.

3. Combine sugar, egg whites, oil, vanilla extract, Greek yogurt and eggs in a large bowl and beat with a hand mixer until blended.

4. Add almondmilk and mashed bananas, beating at a low speed until blended together.

5. Add flour mixture to above mixture and beat at a low speed until combined (don’t over mix.)

6. Coat 2 loaf pans (9 x 5 inch each) or muffin tins (24 muffins) with cooking spray.

7. Spoon batter into pans and fill half-way. Sprinkle almonds evenly over batter.

8. Bake breads (in loaf pans) for 1 hour or until a wooden pick inserted in center comes out clean, or bake muffins (in muffin tins) for 20 minutes and check as above. Cool in pans for 10 minutes and then remove from pans and cool on wire rack.
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Blue Diamond Nut-Thins Launches New Grab-and-Go Snack Size

As better-for-you snacking surges in popularity, Blue Diamond introduced a new 2-oz snack bag to the Nut-Thins product portfolio in three varieties: Sea Salt, Cheddar Cheese and Sriracha. A crispy, crunchy baked rice cracker made with the goodness of California-grown Blue Diamond almonds, the new grab-and-go Nut-Thins were introduced at select 7-Eleven locations and other convenience stores nationwide.

The three distinct Nut-Thins flavors appeal to a wide range of consumers looking for better-for-you snacking choices at convenience stores:

- **Sea Salt**: a classic yet satisfyingly savory appeal that’s perfectly suited to any palate.
- **Cheddar Cheese**: one of our most popular flavors, with real cheese complementing each nutty crunch.
- **Sriracha**: our boldest yet, offering a hot bite of sweet chili and garlic.

According to market research, 94 percent of Americans snack at least once per day, while 61 percent of consumers crave portable snacks. When it comes to convenience store shoppers, approximately 50 percent of consumers are in search for healthier options.

Blue Diamond’s brand marketing recognized the demand for on-the-go snacking options and wanted to offer consumers a better choice for satisfying their cravings, whether they’re in the supermarket or stopped in a convenience store.

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Blue Diamond Snack Nuts Relaunch in Japan

Four flavors of Blue Diamond snack nuts are being sold in more than 700 stores throughout Japan. This relaunch includes a package design that stands out on shelves and displays using vivid colors with the Blue Diamond logo and branding.

The flavors — Fish Mix, Smokehouse, Roasted Salted and Coconut Mix — offer consumers a variety of almonds that make snacking hearty, healthy and fun.

Blue Diamond supported the launch with in-store merchandising, pricing promotion and tasting demonstrations. The packs are being sold in two different sizes: 20g and 110g.

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Legislators Return for Final Push

Legislators returned to Sacramento in late August for the final push to the September 15 deadline. This session, the legislature wrestled with many contentious issues including the passage of the largest infrastructure and tax package in the State’s history, advancing landmark Cap and Trade legislation and grappled with state-sponsored single payer health care. Below is a discussion of key issues the Almond Alliance is working on for the industry.

Advancing Cap and Trade

Last year, SB 32 was enacted, extending California’s Global Warming Solutions Act requiring 40 percent reductions of carbon emissions below 1990 levels by 2030. It is important to note that SB 32 extended the California Air Resources Board’s authority to use command and control mechanisms to regulate greenhouse gas emissions (GHGs) into the future, with little consideration given to the costs of that measure to California’s citizens, consumers and economy. SB 32 was opposed by the agriculture industry and the larger job creation community in California because it did not attempt to balance its mandate with its economic impacts.

AB 398 finds this balance by creating a market-based mechanism that allows food processors regulated under SB 32 to meet their compliance obligations for reducing GHGs in a cost-effective manner. Almond Alliance as well as other ag organizations supported the bill.

Additionally, AB 398:

- Develops a Compliance Offset Protocol Task Force to create new offset opportunities in California, including in the agricultural industry;
- Improves accountability of the California Air Resources Board by mandating additional oversight including an annual economic impact report by the Legislative Analyst’s Office;
- Prioritizes spending of the Greenhouse Gas Reduction Fund by creating a specific order of projects, starting with reducing air pollutants from stationary and mobile sources, sustainable agriculture and short-lived climate pollutants. This includes increased funding for diesel motor replacements and funding for adoption of lower emission almond harvest equipment.

Labor Issues

AB 450 remains one of the most contentious bills with employers being placed in a lose-lose situation between Federal and State authorities pertaining to immigration enforcement at the workplace. Under this bill employers are required to police immigration activity by being mandated to report it to the Labor Commissioner. If they fail to do so, they will face a minimum $2,000 fine and up to $10,000 for each violation. This unnecessarily penalizes employers that otherwise made no violation of the law and chose to comply with federal enforcement activity that is outside of their control. AB 450 is currently pending on the Senate floor and if approved, will be sent back to the Assembly for concurrence on the amendments.

Last year, the legislature enacted SB 3 mandating an increase of the minimum wage for hourly workers and provided a minimum salary for all exempt, salaried employees. This year, AB 1565 unnecessarily accelerates pay increases for salaried, exempt employees in California by creating a $3,700 increase per salaried employee for businesses with 25 or fewer employees in 2018. Employers with 26 or more employees will face an increase of $1,723 per employee. This substantial increase will affect those small businesses who are already struggling with other recent labor and employment mandates.
Clean Water Legislation Takes Center Stage
Water quality and nitrate contamination in disadvantaged communities continues to be a significant policy issue. Discussions surrounding funds for capital expenditure and operations and maintenance costs for replacement water in communities impacted by nitrates have included both water and fertilizer assessments. Association representatives have been in discussions with the Governor’s staff on legislation to address water quality issues. SB 623 (Monning/De León) has become the lead bill in the fight to provide “clean water for all.” The legislation has been amended with substantive language outlined below.

The total collection for the program is estimated to be $140 million annually for clean drinking water, $30 million from agriculture sources and $110 million from a general fee on retail water service. The agricultural funding will come from a combination of sources developed from risk evaluation including a $5 million assessment (one half-cent per dollar spent) on fertilizer and a dairy fee. The general fee will be on retail water connection of $.95 per month for residential and not to exceed $10 per month for commercial, industrial, and institutional customers.

In exchange for the funding, agricultural entities that are enrolled in irrigated lands programs or are designated as a confined animal feeding operation receive liability protection from state board orders. However, the proposed statute does not protect against third party civil or federal suits, which are deemed to be a lower threat to agricultural operations. Almond Alliance as well as other ag organizations, including Agricultural Council of California, support the bill as currently drafted.

On September 1, the Assembly Appropriations Committee referred the bill to the Assembly Rules Committee, making it a two-year bill.

Additional Legislation on Environmental Regulation and Biomass
SB 49 (De León/Stern) is an expansive environmental measure that is being touted no “backsliding” on federal environmental laws. The bill would require California to enforce the federal Clean Air Act, Clean Water Act, Endangered Species Act (ESA) and other similar environmental laws and their implementing regulations and policies as were in place on January 19, 2017. Additionally, the bill would create a private right of action in state law for citizen enforcement of the Clean Air Act, Clean Water Act, and ESA if the citizen suit provisions are removed from these federal laws. SB 49 would also add all species native to California that are listed under the federal ESA to the list of species protected by the California Endangered Species Act. Almond Alliance is working collectively with a coalition of ag and water users to oppose this legislation which was amended September 5.

Maintaining a productive biomass industry continues to be a priority for the Almond Alliance. AB 419 (Salas) would appropriate $500,000 to the University of California to develop protocols for measuring the
avoided pollution and environmental costs by using biomass and bioenergy versus other disposal methods for ag debris, forest waste and urban wood waste. The Almond Alliance supports AB 920 (Aguiar-Curry) which would require a specific amount of baseload electricity generation to be reserved for bio resources such as biomass and geothermal technology. AB 920 is a two-year bill. Finally, the solar industry introduced AB 813 (Holden) which would accelerate the generation procurement and replace biomass as the contracts expire. The Almond Alliance is opposing this legislation.

Kelly Covello, President, Almond Alliance of California

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Tricia Paoluccio knows it’s a privilege to be an almond farmer. Even though her family has a small orchard, they still feel very proud to be part of the farming community. Currently living in New York City, she doesn’t know how many people in The Big Apple have a true understanding of what it is like to work on the land, grow a crop and be a responsible caretaker. The editor of Almond Facts caught up with Tricia to discuss successfully bridging farming life with city life.

AF: How did your family get their start in almond farming?

TP: My parents wanted to raise their kids in the country with chickens, a garden and fruit trees. In 1976, they purchased a six-acre almond orchard, that soon expanded to 40 acres, on Kiernan Avenue in Modesto. Farming was extremely new to my parents. My dad was a practicing mechanical engineer and inventor focusing on environmental innovation and my mom — a former teacher — is an antique collector, authenticator, wildlife habitat naturalist, and gardener (she’s won first prize or best of show at the Stanislaus County Fair for her sweet pickles). Our family was grateful for all the help and guidance they received over the years. The Regusci family and other neighbor friends were quick to provide a tractor and to cut the orchard grass before it was three feet tall. Living on an almond ranch is a huge source of pride for our family.

AF: How would you describe yourself?

TP: I have always loved acting, singing, the arts. Even though I live in New York City, I consider myself a farm girl at heart. Whenever possible, I come home to Modesto and visit my parents; it’s my favorite place to be. I love to can fruit every summer, and make jams and jellies. I love to make soap and candles with my sister-in-law. I love farm chores and taking care of animals and working in the yard. Now that I am a mom to two young boys, I feel it’s one of my top priorities to teach them how to live and work on a farm and balance out their city life in New York. They definitely want to live in Modesto when they grow up.

AF: What was it like growing up as a farming family and on an orchard?

TP: I loved my childhood growing up in Modesto and on a farm. I have been through our 40 acres — to the canal and back — so many thousands of times, with dogs, on a gator, on bikes, a four wheeler, with family and friends and now my own kids. Our almond orchard means so much to me and I never want to see it go. My husband and I were married in the middle of the orchard, in a chapel my brother built. Growing up, I loved that there was space to roam around with such freedom. It is ironic that I now live in Midtown Manhattan in a small apartment!

AF: Do you have any favorite childhood memories or traditions?

TP: We used to have talent shows, neighborhood BBQs and family reunions in our barn. My parent’s property
is a wonderful place to have parties! My brother and I grew up making forts outside and pretending to be the Boxcar children behind the barn and eating fruit off the trees, pretending to “live off the land.” I have memories of almond blossom season, which is around my birthday, and helping with the harvest when we were little — raking the rows and picking up sticks, standing under the trees with hard helmets when the trees were being knocked, irrigating and getting our shoes stuck and lost in the mud. My brother and I had great childhoods. It was a real blessing.

AF: You mentioned a love for acting, singing and the arts. Tell us more about that.

TP: I grew up performing with Modesto Performing Arts and moved to New York City when I was around 20 years old. I worked in all aspects of my profession: on Broadway, Off-Broadway, regionally, in TV and films, commercials and voiceovers. You must do everything to make a living in New York. Currently, I am in the middle of creating, producing and acting in two web series. I’m thrilled to be creating my own work. I remember walking through the orchard singing my lungs out, dreaming of being on Broadway! I feel very incredibly lucky that dream came true.

AF: You recently performed in Sacramento for the Broadway musical, 9 to 5. What other performances have you or are getting ready for?

TP: I loved being in that musical! Sacramento Music Circus is a wonderful place to work. I grew up loving Dolly Parton and I guess I have a knack for channeling her spirit. Getting to play the role of Doralee that she created was truly a dream come true. Currently, I am editing episodes of one web series, Mommy Blogger. It is a comedy about a wannabe mommy blogger who forces her husband to quit his job to devote himself full-time to the blog. She only has 17 followers and it’s killing her. We’ve shot about 15 episodes, and you can check them out at mommybloggerseries.com! The other web series I am involved in just became an official selection in a festival called the iTVFest for new TV shows. That one is called #MotherJudger and was created with a very close group of talented friends. A cover song I recorded in Nashville – “The Story” – will be playing throughout the fall in a podcast hosted by Women of Substance Radio.

AF: What else do you enjoy that connects your experience of both farm and city life?

TP: I care about prison reform and spent many years volunteering as a prison chaplain. I love to do collage and create art. Before I made a living as an actor in New York City, I sold my artwork on the streets. I am grateful to be a student of Christian Science and feel very inspired by those teachings. I home-birthed both our boys in our New York City apartment, three years and three days apart. I am a passionate baker and I have never owned a car, so I barely know how to drive. Reflecting on all my experiences, I am very much the same person I was growing up!
AF: What has it been like for your family to be part of the Blue Diamond Grower cooperative?

TP: As a member of the Blue Diamond family, I have a clearer view of the issues that farmers deal with, including weather, encroaching development and public policies. I appreciate, that as a proud New Yorker, I also have this other perspective. An added practical benefit of being a Blue Diamond Grower is that I always know what to give people for gifts!

For more information about Tricia Paoluccio and to follow her latest news, hear her music and get access to the web series, visit www.triciapaoluccio.com.
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TIME TO CONSIDER

With the hustle of harvest slowing down, late fall is a good time to walk the orchard and look for any issues that can be addressed in the following months. Take time to reflect on the challenges of the season and be on the lookout for the following:

1. Navel orangeworm (NOW). Was damage higher than expected? Were field samples collected and cracked out? The damage reported from the processor is often 50 percent less than what was experienced within the field. This is due to the harvesting process and that damage percentage is measured by weight, not count, at the processor. Remember, every 1 percent of damage is 25 lbs./acre if averaging a 2,500 lb./acre crop. If damage was high, were the trees winter sanitized? Mummy nuts serve as the only food source for NOW between last year’s and this year’s crop. Was a hull split spray applied? Which material and at what volume? What type and how fast was the rig speed? If this is unknown, better notes should be taken.

2. Stick tights. Are there more than expected? Does one variety have more stuck nuts than the other? If so, what symptoms are observed? Gumming can occur with hull rot, boron toxicity, or diseases such as anthracnose or bacterial spot. Dead shoots often are due to hull rot. Stick tights could also be due to uneven ripening from a protracted bloom (common in self-pollinating varieties), poor shake timing, or incorrect water management. Sanitizing these mummies will need to occur to reduce NOW pressure the following season.

3. Weeds. What weeds presented a challenge to manage this past year? Were applications of glyphosate or glufosinate ineffective due to resistance or lack of activity on weed spectrum? Are these weeds beginning to spread across the field? Even more concerning, is there a new weed problem emerging? The weeds present and issues experienced will help with post- and pre-emergent selection, timing, and rates.

4. Water infiltration issues. Water infiltration problems are becoming more common due to increased water applications, low quality water, reduced cover crop usage, compaction, and varying soil characteristics. After an irrigation, are there visible puddles and signs of soil crusts? Does water appear to run off the field? Does the water create saturated zones underneath the emitters?

Stick tights can occur for many reasons. Identifying the causes can help increase yield and reduce shaker damage to the trees.

Soil crusting and reduced water infiltration rates are common in irrigated orchards. Soil samples from the top few inches should be analyzed to determine which amendments should be applied.
These problems are not easy to resolve, but reducing and preventing is critical to maintain high yields. Areas with problems should be sampled to identify the underlying soil chemistry issue. The irrigation water should also be sampled.

5. Appearance of salt toxicity. Are leaves exhibiting signs of brown, crispy, or “burnt” edges? This could be evidence of sodium or chloride toxicity. Review leaf tissue samples from July to determine the element of concern. Sample soils to compare to previous year’s samples to identify any emerging salinity issues. Utilize this information to develop a leaching program, which may include early winter irrigations to refill the profile and leach and applications of soil amendments to assist with the leaching process.

6. Under-performing areas. Trees that are growing at a slower rate than other areas could be indicative of a soil texture change or poor irrigation distribution. It is difficult to manage soil texture differences, but emitters could be changed to apply water over a larger wetting pattern to increase the soil volume. In these cases, try not to change the emitter flow as this may impact distribution uniformity (DU). Pump and irrigation line maintenance will help improve DU. Check pressure at the emitter to determine if flows are reduced. If lower pressures are observed, check the flow rate of the pump to see if it may have dropped or not properly set, inspect lines for leaks and clogged screens and emitters for precipitation build-up and flush the lines.

Late Postharvest Nitrogen Applications
Mid-July leaf nitrogen content should be reviewed to determine nitrogen needs. Nitrogen applications to trees with adequate or excessive mid-July leaf nitrogen levels (>2.5 percent) are most likely not needed. This is supported by research conducted by Franz Niederholzer (UCCE Yuba/Sutter/Colusa) who has shown that mid-September or later postharvest nitrogen applications to trees with mid-July leaf nitrogen at or over 2.5 percent did not improve crop yields the following year. Trees were followed for four years within this study.

Furthermore, late postharvest applications of nitrogen may not even provide a benefit. Nitrogen moves into the tree with water via mass flow. By the end of September, 70 percent of the water usage in the postharvest period has occurred, reducing the ability for nitrogen to be “pulled” into the tree. Applications of nitrogen to trees after this time should be significantly reduced (<10 lbs./acre) or eliminated to prevent leaching of excess nitrogen.

Timing of Orchard Pruning
Over the past few years, there has been an increase in wood canker pathogens infecting pruning wounds, wind cracks and damaged areas of young almond trees. Infections start off slow, but eventually girdle limbs, killing scaffolds and impacting production. These pathogens are most active right before, during and immediately after rain events as they require the humidity to sporulate and the wind-splashing of rain to spread. In order to prevent pruning wound infections, pruning of young trees should not occur when rain is in the forecast. Cutting of limbs on primary scaffolds of mature trees should also not occur at this time.

Planning to prune young trees around the weather may delay pruning. Research performed in Yolo County has shown no impact when pruning as late as full leaf expansion (late March). In this study, the growth was followed over three years and no differences were observed in the various treatments, including a winter dormant pruned control. Research on how early pruning
Pruning once the days are cooler and shorter should reduce the risk of secondary bud break. Pruning of mature trees can begin shortly after harvest. Pruning should be minimized as multiple long-term studies have found that it can reduce yield and increase orchard operation expenses. Nevertheless, limbs that are blocking equipment access, creating a safety hazard, or are dead or dying should be removed. Selective limb removal also has been shown to increase spray coverage, reduce sticks at harvest as well as reduce foliar diseases.

**Orchard Removal and Replanting**

If planning to redevelop a block, consider harvesting the later varieties earlier to allow more time in the process. Nematode sampling should occur prior to removal to determine which species are present and assist in rootstock selection. This can be done one to two years prior to removal. Line up the resources for orchard removal, which can be done by tub grinders, whole orchard incorporation, or removal for firewood. Once removed, the field should be ripped to the depth of 24 inches or greater several times to assist in root removal and reducing compaction. Some cases, ripping deeper should occur to assist with breaking or re-breaking hardpan. Backhoeing has been shown to be effective in increasing tree growth with or without fumigation in sandy soils and is recommended for these conditions.

After soil modification, the field should be disced and spring-toothed to assist in root removal and leveling. After settling, the ground can be leveled and berms can be pulled. Fumigation should be considered, especially for sandy loam to sand soils to manage Prunus Replant Disease and plant parasitic nematodes. If fumigating, most of the land prep should be done prior to fumigation, with the exception of pulling the berms. Moving soil around after fumigation defeats the purpose of fumigating. The field should be prepped and the irrigation system installed or ready to be installed immediately after planting. Bare root trees should be

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**When considering to fumigate, consider the orchard history, presence of nematode species, and soil type.**

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<th>Rowstrip Telone-II</th>
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planted as soon as possible. Potted trees have more flexibility in planting timing.

Fumigation should be considered in areas with high population of plant parasitic nematodes (Ring, Lesion, or Rootknot) or a history of Prunus species (peach, plum, almond, cherry, etc). A matrix to assist with the decision is provided in the table. Although not a true replant scenario, almonds following grapes often struggle with high counts of Ring and Rootknot nematode and fumigation with Telone-II should be considered. In other soil types, replanting Prunus species after other Prunus species creates not only nematode problems, but also issues with Prunus Replant Disease. In these situations, a nematode analysis can help determine if chloropicrin, mixture of chloropicrin and Telone-II or Telone-II should be used.

The Final Thought
There seem to be many complaints regarding NOW damage this past year. Winter sanitation is the first and primary means of reducing NOW populations. I often hear how expensive it is to winter sanitize, but rarely do people consider the cost of not sanitizing: every 1 percent NOW damage for a 2,500 lb./acre crop is $62/acre in lost production, excluding the loss of processing bonuses. Plan to remove mummies to less than two per tree this winter.

David Doll, UCCE
Nut Crop Pomology
Farm Advisor,
Merced County

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<tbody>
<tr>
<td>Self Pollinator</td>
<td>YES</td>
</tr>
<tr>
<td>Requires Bees</td>
<td>NO</td>
</tr>
<tr>
<td>One Harvest</td>
<td>YES</td>
</tr>
<tr>
<td>Less Fuel Used</td>
<td>YES</td>
</tr>
<tr>
<td>Less Dust Created</td>
<td>YES</td>
</tr>
</tbody>
</table>

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First Annual Mite-A-Thon

Varroa mites (Varroa destructor) are arguably the most heinous scourge of honey bees. They are ubiquitous, can easily migrate from colony to colony and vector viruses that lead to elevated colony mortality. Yet, despite their destructive capacity, many beekeepers still do not monitor for these infestations nor have a Varroa mite management in place. At the Bee Informed Partnership, we work hard to get the word out to anyone who will listen — Varroa mites are in every colony. Beekeepers must accept that fact and understand that if you want to keep your colonies alive, you must monitor frequently and be proactive in your management.

Varroa mites are not native to the European (or Western) honey bee (Apis mellifera) and were accidentally introduced to the U.S. in the late 1980s. Their natural host is Apis cerana (Eastern honey bee from Asia); however, Varroa mites can and do thrive in our honey bee colonies. They are a large parasite that can be visibly seen with the eye on adult honey bees and in the brood. Varroa mites can directly (feeding on brood) and indirectly (vectoring viruses) harm and kill colonies if left untreated. Since these mites breed in the honey bee brood, their population closely follows the population dynamics of the colony itself, lagging just a bit behind. Honey bee colonies peak in the late spring/early summer to time placing large number of foragers on pollen/nectar producing plants at their peak. As you would guess then, Varroa mites are peaking in the early fall. Fall is perhaps the most important season in the beekeeping calendar. This is the time of year when colony reproduction slows, forage becomes scarce yet Varroa mites are at their peak population in untreated colonies. If a colony is to survive the winter, adequate stores or feeding must take place and Varroa mites must be reduced to a level that will not harm the winter bees being produced by the colony at this time. What level does that mean? For those states who experience a true winter, we suggest that Varroa mites be reduced to <2-3 percent during the fall months. Left untreated, Varroa mites will kill your colony. If a few colonies are above threshold during this time, treat the entire yard. Crashing colonies due to high mite loads will affect the other colonies in the yard and other yards nearby that are managed by other beekeepers.

How do you monitor? When do you monitor? For those who have never done so and for those who regularly do, there was a national citizen science event that occurred for the first time this year. The first ever National Mite-A-Thon was held September 9 through 16, where participants monitored the level of mites (number of mites per 100 bees) using a standardized protocol utilizing two common methods of assessment (powdered sugar roll or alcohol wash) and then enter data, including location, total number of hives, number of hives tested, local habitat and the number of Varroa mites counted from each hive. Please note: The published information does not identify individual participants.
You can easily build your own kits (see our blog at beeinformed.org), but if you'd rather purchase a kit that has everything you need, see these kits from Brushy Mountain (http://www.brushymountainbeefarm.com/Varroa-Testing-Kit) or at Mann Lake (https://www.mannlakeltd.com/bee-squad-varroa-mite-testing-kit).

For more information about the Mite-A-Thon, please visit http://www.pollinator.org/miteathon.

For more information about Varroa mites, monitoring and treating, the Honey Bee Health Coalition has done a great job in providing current, vetted materials here: http://honeybeehealthcoalition.org/varroa.

Karen Rennich, Executive Director of the Bee Informed Partnership, Inc.

Early heat map of MiteCheck showing mite levels across the country. (Courtesy of MiteCheck.com)
The Almond Industry’s Success in Food Quality and Safety: A Celebration of Progress To-Date and Continued Opportunities for the Future

The almond industry’s track record of progressive leadership related to food quality and safety is impressive. This month marks the 10-year anniversary of the almond pasteurization program, implemented on September 1, 2007 with the goal of setting higher industrywide food safety standards to better prevent the risk of foodborne illness from almond products. The hard work has paid off; since the program has been in place, there have been zero foodborne outbreaks associated with California Almonds.

The Food Safety Modernization Act (FSMA) has officially taken effect, and its wide-sweeping rules give the almond industry another opportunity to showcase its commitment to leadership. FSMA will help elevate the entire food industry to higher food safety practices. Several of the FSMA rules could require action by the almond industry, many of which have already gone into effect. Below are summaries of each of the rules and how they apply to different sectors of the almond industry.

Food safety will always be a continued and collective effort. Thanks to the leadership and vision of growers, hullers and processors to implement an industrywide pasteurization program, good manufacturing practices and good agricultural practices, the almond industry is especially positioned for success in FSMA compliance. Additionally, there have been several resources and guidance messages developed to help communicate FSMA requirements for each stakeholder involved. Please visit Almond Board of California’s webpages almonds.com/growers/fsma or almonds.com/processors/fsma for continued updates and information.

Produce Safety

The Produce Safety Rule establishes federal food safety regulations for farms covering: agricultural water; biological soil amendments; worker hygiene and training; buildings, tools and equipment; growing, harvesting, packing and holding; and management of domesticated and wild animals. This applies to almond growers, as well as huller/shellers and brownskin almond handlers that meet the primary or secondary farm definition. The next compliance deadline is January 26, 2018 for large farms. There are two options for complying with the Produce Safety Rule:

1. You can utilize the Produce Safety Rule exemption for commercial processing, or
2. Comply with all applicable Produce Safety Rule requirements.

Learn about both options in the FSMA Fact Sheets on the website:

- Is My Operation a “Farm” Covered by the Produce Safety Rule?
- What Do Farms Need to Do to Comply with FSMA?
- What Training Requirements Does FSMA Have?
Preventive Controls for Human Food
The Preventive Controls for Human Food Rule requires facilities to conduct a hazard analysis and implement a food safety plan, with additional requirements existing around supply chain controls and employee training. This applies to almond handlers and huller/shellers not meeting the primary or secondary farm definition or that are farm mixed type facilities as well as custom processors and others engaged in manufacturing/processing.

Learn more in the FSMA Fact Sheets on the website:
• What Do “Facilities” Need to Do to Comply with the FSMA Preventative Controls Rule?
• What Do I Need to do to Comply with Current Good Manufacturing Practice (CGMP) Regulations?
• What Training Requirements Does FSMA Have?

Preventive Controls for Animal Food
This rule is similar to the Preventive Controls for Human Food rule and establishes requirements for animal food that are relevant under two conditions: 1) If you are a facility that manufactures feed for animals or 2) If you’re a facility that sends human food by-products (e.g. hulls/shells) for use as animal feed. This rule applies to facilities such as non-farm almond handlers and non-farm huller/shellers.

Learn more in the FSMA Fact Sheets on the website:
• What do I Need to Do if I Send Human Food By-Products for Use as Animal Food?

Sanitary Transportation of Human and Animal Food
The Sanitary Transportation of Human and Animal Food Rule reflects long-standing industry best practices for food transportation and establishes requirements for vehicles and transportation equipment, records, training and waivers. It applies to anyone that is transporting food that is not a farm; you are exempt from this rule if the food is fully enclosed in a container and does not require temperature control for safety. The next compliance deadline is April 6, 2018 for midsize businesses.

Learn more in the FSMA Fact Sheets on the website:
• What do I Need to Do to Comply with the Sanitary Food Transportation Rule?

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Intentional Adulteration
This rule outlines risk-reducing strategies to prevent intentional adulteration from acts intended to cause wide-scale public health harm and requires, for the first time, a food defense plan. This applies to facilities including non-farm almond handlers and non-farm huller/shellers and the next compliance deadline is July 26, 2019 for large businesses.

Foreign Supplier Verification Program
This rule requires importers to verify that their foreign suppliers have adequate programs in place to ensure the food coming into the U.S. meets food safety standards comparable to those in the U.S. This applies to almond handlers that import ingredients directly from a foreign supplier (you are exempt from this rule if you purchase ingredients from a U.S. supplier). Compliance of this rule began back in May, 2017 for all businesses.

Learn more in the FSMA Fact Sheets on the website:
- How do I Comply with Supplier Verification Requirements?

Accredited Third-Party Certification
This rule establishes a voluntary program for the accreditation of third-party certification bodies/auditors to conduct food safety audits and issue certifications outside the U.S.; it would only apply in two situations, neither of which affect the U.S. almond industry: 1) if you’re trying to be part of FDA’s Voluntary Qualified Importer Program or 2) if you’re importing food from a country for which FDA requires certification as a condition of import.

You can find all the factsheets listed above at almonds.com/growers/FSMA or almonds.com/processors/FSMA.

ABC utilized input from Elizabeth Fawell and Maile Hermida, lawyers with Hogan Lovells US LLP in Washington, D.C. in the preparation of this article. The article is provided for informational purposes only and does not constitute legal advice.
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