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Cover Photo:

Homepage of Blue Diamond's new grower website, www.bluediamondgrowers.com.





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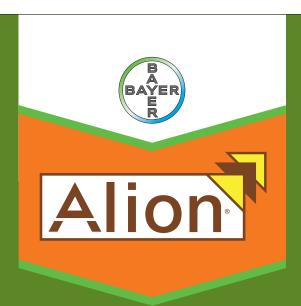
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Blue Diamond, the world's largest processor and marketer of almonds, exports to 90 countries. The cooperative marketing corporation also markets hazelnuts.

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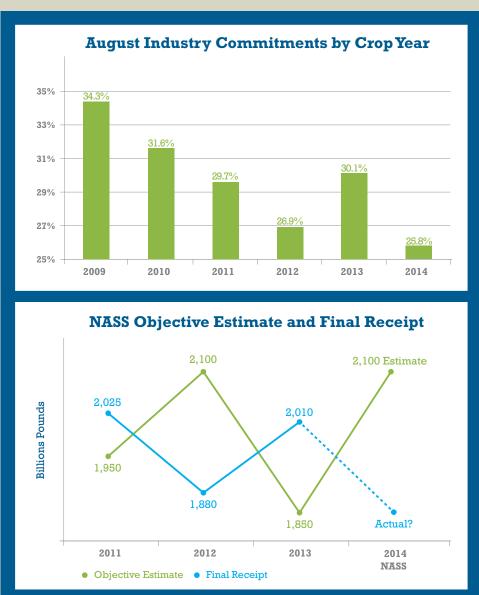
President's Corner

Mark Jansen President and CEO

"I pay less attention to what men say. I just watch what they do."

- Andrew Carnegie

The idea that actions speak louder than words is an old market truism. This is particularly apt for the almond industry. In previous years, if you listened to coffee shop discussion, you could believe that almonds were only sold at the peak of the market, even if that peak was only a couple of weeks long. When you looked at state averages and final handler returns, it was obvious there was more bravado than perfect timing.



This year could be unique in that California is truly reluctant to sell this crop. Comparatively little business has been done this summer. In my August 18 Almond Insights video, I predicated that 2014 shipments and percent crop commitments would be at a record low. In past years, this would have been seen as a sign of weak demand. This year, it will be a sign of weak supply.

The 2014 Nonpareil crop will be significantly less than the NASS Objective Estimate. Statewide, the crop is down 15 percent or more. There is less chipping and shriveling than expected, however, rejects from NOW and ants appear to be the challenge. To put the size of the 2014 crop in perspective, pollenizer harvests will need to exceed last year to achieve a total crop of 1.9 billion pounds. The early pollenizer harvest results appear to be better than Nonpareil, but it will be difficult to match last year's crop. We expect a crop well under the record NASS forecast of 2.1 billion pounds. Looking at recent years, a crop under 1.9 billion would still be within the range of error.

Market pricing reflects California's reluctance to sell. Price lists are being adjusted upward daily. This trend will likely continue until there is significant positive news on crop supply or water security. At some point there will be a correction in pricing, but I do not see a trigger on the horizon.

Over the last two years, competitive handlers have forecasted doom for *Blue Diamond* because of our investment in new facilities. Second hand, I have heard all kinds of predictions on what the new Turlock facility would cost growers in returns. Fortunately, the fear-based selling tactics did not work on our growers and last year

Blue Diamond handled a record supply of almonds. Throughout this time, we promised, "the new facility will cost one cent in return and you will not notice, because each year we find margin enhancement savings that benefit growers by several cents a pound." In watching our returns, you will see that our actions live up to our words.

It is true that *Blue Diamond's* investments in the long-term health of the co-op and the almond market, as exemplified by the Turlock plant and advertising, distinguish us from the industry. It is also true that *Blue Diamond's* product innovation, marketing and margin enhancement programs distinguish our business model from the remainder of the industry.

Our almond market expertise is the best in the industry, but we are not dependent on timing the market. As a result, *Blue Diamond's* returns have been very competitive for the previous three years, and this year we have created additional distance with our excellent performance. With today's almond price volatility, *Blue Diamond* growers can take comfort knowing that we are transforming into a value-added business model. This positive change will increasingly provide stability in returns.

Blue Diamond 2013 Crop Returns

Our 2013 crop performance set a record for the highest per pound payment and the greatest total dollar amount ever paid to our growers. More importantly, I believe that you will agree that our performance this year significantly outpaced the balance of the industry.

As was announced at the 2014 District Meetings in July, we are providing our growers with an additional tax benefit this year in the form of an IC-DISC. The total amount applied to the DISC will appear on IRS Form K-1 that you will receive in January along with your regular IRS Form 1099-PATR. There will be a seminar at the 104th Annual Meeting detailing the importance of this tax benefit.

Variety	Overall Average	Average of High Quality	Maximum with All Premiums
Nonpareil/Sonora/ Independence Inshell	\$3.46	\$3.47	\$3.48
Nonpareil/Supareil Meats	\$3.42	\$3.43	\$3.45
Sonora/Independence Meats	\$3.31	\$3.34	\$3.36
Carmel	\$3.19	\$3.19	\$3.21
Monterey	\$3.15	\$3.15	\$3.17
Calif/Price/Fritz/Wood Colony	\$3.07	\$3.09	\$3.10
Butte/Padre	\$3.04	\$3.05	\$3.06
Mission/Neplus	\$2.98	\$2.99	\$3.01
Peerless Inshell	\$1.08	N/A	\$1.10

Note: The above rates do not include Volume Premiums, Domestic Production Activities Deduction and IC-DISC advantages.



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FIELD SUPERVISOR AND TIME TO CONSIDER COLUMNIST ROB KISS RETIRES

"What I liked best about being on the membership staff was working with the growers and helping them to produce their crop. From fertilizer selections to insecticides, to irrigation and variety selection, it was always a very rewarding experience," said Rob Kiss, veteran Field Supervisor. Rob retires after working with *Blue Diamond* almond growers in the Turlock area since St. Patrick's Day in 1980.

Kiss is a graduate of Fresno State, where he earned a degree in biology with a chemistry emphasis. "I wanted to go to work in forestry, but the year I graduated, there were only two jobs available for the whole state. I ended up being hired by the Bud

Antle Lettuce Company and I was their pest coordinator. So began my career in pest control advising."

His long-term stint with *Blue Diamond* began after years working as an agricultural pest control advisor (PCA) in northern Merced County. "It was an opportunity for me to have a work-life balance, utilize my PCA skills and work for a great company with a super reputation," he explained. "I jumped at the opportunity!"

Soon after joining the member-relations team, Kiss was approached by Member Relations Director Dave Baker to write a cultural column for Almond Facts magazine. That column, Time to Consider, remains one of the most widely read sections of the bi-monthly magazine.

"Most of the column is generated from 'normal' Good Agricultural Practices and a lot of it came from experience," said Kiss. "I tried to include some university findings and research, and always rounded it out with a bit of common sense. I have never thought that farming almonds was rocket science. If you pair common sense and good chemistry, most of the time it works out pretty well."

Baker oversaw Kiss's field activity since 1982. "Rob is going to be sorely missed, not only by *Blue Diamond* as a field supervisor, but also by his growers who were pampered for many years. He is one of most knowledgeable and best field supervisors that *Blue Diamond* had the privilege of having on staff for 34 years."

When asked what his most memorable moment was after working for *Blue Diamond* for over 34 years, Kiss recalled a time that "defined who we were and what we are as a company." He was visiting with Ray Harcksen, a *Blue Diamond* past director, long-time farmer, manager of Northern Merced Hulling and Kiss's old friend. He asked his friend to share a piece of advice, any advice, about his job with *Blue Diamond*.

"He looked at me sternly and replied: first, never forget who you work for; second, never forget the job a company is supposed to do. Isn't that perfect?" Kiss said. "It was applicable the day *Blue Diamond* began and should still be the heart of what we do today. This would be my advice to anyone coming to work for *Blue Diamond*."

Ultimately, Kiss said he would miss the growers and field staff the most. "Our growers are friends and family to me and they always will be. And the field staff, they are so well respected inside and outside of the almond industry. They were a brotherhood and we have been through a lot together. No brothers were ever left behind. I was part of an incredible team."



 ★ Kiss, standing, and his wife Debra register growers for continuing education credits during Blue Diamond's 2013 Annual Meeting.

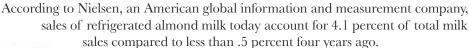
Growers Fashion Smokehouse Piñata for **Family Party**

Blue Diamond members Merlyn and Betty Lou Garber really know how to get a party started. The couple had a Blue Diamond Smokehouse almond can made up for their annual harvest barbecue. "Each year, one of our employees makes a piñata to entertain the children at the party," said Merlyn. "This year we asked our two younger grandsons, eight-year-old Luke and five-yearold Steven, what kind of piñata we should make. They thought about it and decided one that looked like a can of Smokehouse Almonds would be their choice!" Now that's team spirit!



Nondairy Consumers Prefer Almond Milk

The journey of almond milk's popularity is featured in a recent Boston Globe article, "For nondairy consumers, almond milk outsells soy milk." A brief history of nondairy options is told, starting with soy milk, a popular product for years until it fell out of favor due to its lack of calcium and possible risk of breast cancer due to its high phytoestrogen content. Rice milk is noted as the next consumer choice, but its lack of protein and nutrients, watery consistency and high sugar content limited its popularity. Consumers have now enthusiastically turned to almond milk.





John O'Shaughnessy, the general manager of the consumer division at Blue Diamond Growers, was quoted in this article regarding the demand for almonds. "It just continues to snowball," O'Shaughnessy said. "[Prices] have gone up by about a third since 2009, and there has been no falloff in demand since these prices have been passed into the marketplace."

A couple of consumers were profiled in the piece: one man blends gallons of homemade almond milk a week for his bakeries; another utilizes almonds to help fight an autoimmune condition.

The Blue Diamond Original Almond Breeze packaging served as the only visual, and the Blue Diamond brand was the only brand quoted in this news piece.

For more information about this article, visit www.bostonglobe.com/lifestyle/ food-dining/2014/08/05/for-nondairy-consumers-almond-milk-outsells-soymilk/xccrqgF5N5iHigYV3R6Z7H/story.htm.

Daily Tree Nut Consumption Can Benefit Individuals with Type 2 Diabetes

Two new meta-analyses conducted by University of Toronto researchers using tree nuts were recently published in *British Medical Journal Open (BMJ Open)* and *PLOS ONE*. The *BMJ Open* piece looked at the effects of tree nuts on metabolic syndrome (MetS) criteria, and the *PLOS ONE* article focused on the effect of tree nuts on glycemic control in diabetes.

Researchers found that eating two servings a day of tree nuts helps people with type 2 diabetes lower and stabilize their blood sugars. The best results were seen when tree nuts replaced refined carbohydrates rather than saturated fats.

According to Dr. Cyril Kendall, Ph.D and leading researcher of the study, "Both of our analyses indicate that daily tree

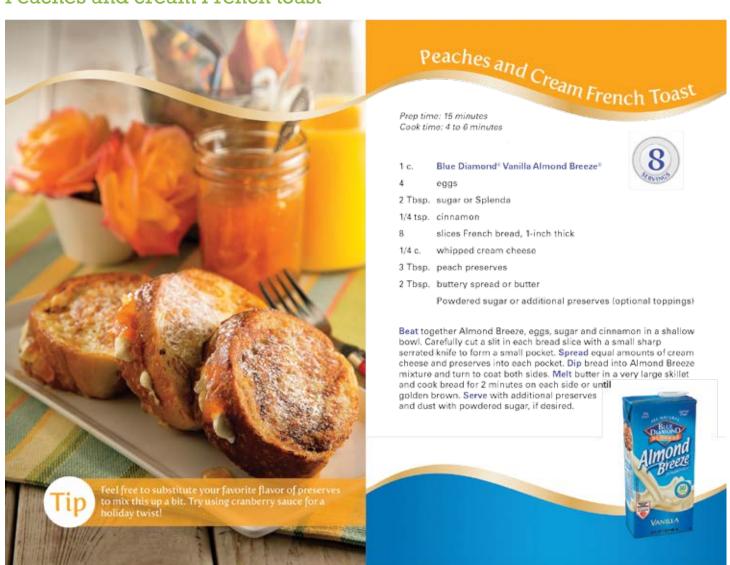
nut consumption has an overall metabolic benefit and can improve risk factors for metabolic syndrome, and glycemic control in individuals with type 2 diabetes."

Maureen Ternus, M.S., R.D., Executive Director of the International Tree Nut Council Nutrition Research and Education Foundation states, "In 2003, FDA (in its qualified health claim for nuts and heart disease) recommended that people eat 1.5 ounces of nuts per day – well above current consumption levels. We need to encourage people – especially those at risk for MetS and those with diabetes - to get their handful of nuts every day."

For more information about this research, visit www.nuthealth.org.

Breeze Recipe of the Month:

Peaches and cream French toast



Acreage, Variety Figures Gleaned from Almond Nursery Survey

Earlier this year, the Almond Board of California Board of Directors approved the commissioning of a survey of the principal nurseries throughout the state involved in raising and shipping almond seedlings. In cooperation with the USDA and the California Department of Food and Agriculture, the survey was conducted by the National Agricultural Statistics Service.

The primary objective of the California Almond Nursery Sales Survey was to quantify the number of new almond trees being shipped by nurseries in order to have a better idea of the new plantings and replanting taking place. Thus, the

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information would assist in refining crop forecasting for future years.

Questionnaires were sent to all known almond nurseries in CA. Responses were received from 8 out of 10 operations. Acres planted were calculated using the reported number of trees sold, along with the trees per acre from the Almond Acreage Survey.

The nurseries were asked to report the total number of almond trees sold for commercial plantings and the total number of Nonpareil variety sold. They were also asked for the percent of trees sold for new almond orchards, replanting an existing orchard or to replace trees within an existing orchard.

The results concluded that at least 8.33 million almond trees were sold by CA nurseries since July 1, 2013, which represents a 25 percent increase from those sold a year earlier. Of those sold since July 1, 2013, 72 percent were used for new plantings, 24 percent were used to replant an existing orchard and 4 percent were used to replace trees within existing orchards.

Per the Almond Acreage Survey, there was a new planting average of 125 trees per acre. Almost 67,000 acres of almonds have been planted since the middle of 2013, and over 26,000 of those acres were to Nonpareils. About 72 percent of the total trees sold (48,000 acres) are new almond orchard acres, and almost 24 percent (16,000 acres) replace existing orchards. The remaining trees sold replaced trees in already existing orchards.

California Agricultural Statistics publications are available at www.nass.usda.gov/ca.

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Blue Diamond and DOLE Bananas "Peel the Love" Once Again

Last year, DOLE Bananas and *Blue Diamond Almond Breeze* partnered in a "Peel the Love" tour, which traveled to ten cities in America encouraging consumers to eat more bananas and drink more almond milk. The tour delivered DOLE Banana and *Almond Breeze* messages, recipes and samples directly to tastemakers from Seattle to Baltimore. Over 107,000 recipe samples were handed out at 147 tour stops at supermarkets, special events and local venues, making the tour a huge success.

It's no surprise that retailers and consumers requested another nation-wide event – this time around, DOLE and *Blue Diamond Almond Breeze* decided to launch two simultaneous tours. The tour launched from New York City and Dallas on May 26th. Two caravans set off to deliver the messages of tasty nutrition to local supermarkets, food fairs and festivals in 26 cities in 21 states over 104 days.

"Last year, our 'Peel the Love' Tour took the eating-healthy-can-be-fun message to banana lovers in 10 cities across the country," said Bil Goldfield, Dole Fresh Fruit Company's director of corporate communications. "But almost from the start, consumers and retailers wanted more."

The multiyear initiative reminds Americans about the fun and nutritional significance of the world's most popular fruit and encourages greater consumption of fresh fruits and vegetables overall. Each brightlycolored tour vehicle and "Banana Cabana" offered recipe booklets, product samples, kid's activity sheets and other free giveaways. This year, visitors at each tour stop could present a grocery receipt showing a DOLE Bananas qualifying purchase to receive a complimentary gift.

Blue Diamond Almond Breeze joined DOLE Bananas as a featured ingredient in a variety of the 2014 "Peel the Love" recipes, including Banana Cabana Smoothie, Sticky Banana Spread, Banana Pineapple Coconut Smoothie and Chocolate Monkey.

"The recipes are not only delicious, but also fit with a healthy lifestyle, which we believe is important," said Suzanne Hagener, the Group Marketing Manager of *Blue Diamond Almond Breeze*. "Through the tour recipes that feature *Almond Breeze*, we hope to prove that almond milk is a convenient and nutritious alternative to traditional milk options."

The "Peel the Love" Tour made a special stop at *Blue Diamond's* Sacramento headquarters, distributing healthy and delicious snacks to the cooperative's employees. It also made several other stops around Sacramento, including at local television station Fox 40 where reporter Eric Rucker learned how to make a DOLE Banana/Almond Breeze smoothie and banana s'mores.

Just like last year, Dole continued to educate registered dieticians, supermarket nutritionists, food bloggers and other influencers through media appearances, tastings and educational summits. In addition to reaching out to influential professional voices, DOLE engaged with the more than 1 million DOLE Banana and *Blue Diamond Almond Breeze* social media fans throughout the tour.

"The two brands make the perfect pairing, and we're delighted to partner again with DOLE," said Hagener. "'Peel the Love' is the perfect fit for *Blue Diamond* since we're also committed to showing consumers that summer eating can be nutritious, delicious and fun."

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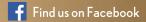
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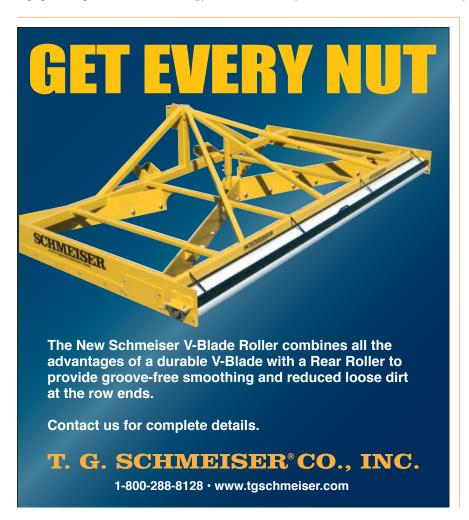


Blue Diamond Highlights Almond Versatility in Baked Goods at Paris Food Show



Blue Diamond is the leader in almond innovation and the food industry has taken notice. First came Food Engineering magazine, which named the cooperative's Turlock facility "Plant of the Year" in 2014 and featured the facility's manufacturing prowess on the cover of its April 2014 issue. Next came a June feature story in Food Industry News, "Almond Demand Grows as Snacking Occasions Get Healthier," in which Blue Diamond's General Manager of Global Ingredients Bill Morecraft was interviewed about trends in almond ingredient demand. In the summer 2014 issue of Food Product Design, Morecraft also highlights the classic pairing of almonds and chocolate in the article, "The New Chocolate Factory."

The most recent publication to trumpet *Blue Diamond's* ingredient leadership is Snack Food & Wholesale Bakery with their August cover story, "*Blue Diamond Growers'* dream plant cooks up healthy almond snacks." Snack Food & Wholesale Bakery is a widely read publication, covering "emerging baking industry and snack food industry trends and developments in ingredients, equipment, production technology and new healthy snacks, snack food and bakery products," according to its website.



"The recognition that our company has received from these trade publications is a testament to our processing capabilities and ability to innovate new, exciting almond ingredient products," said Morecraft.

Throughout the Snack Food & Wholesale Bakery article, the author refers to the many capabilities that *Blue Diamond's*Turlock plant brings to the cooperative's manufacturing portfolio. "The first phase of the expansion will meet growing global consumer demand for value-added almond ingredients. Some of the end product applications from the ingredients side include cereals, snack bars, baked goods, yogurt toppings and confections," the article states.

Blue Diamond is returning to the SIAL Paris show in October equipped with its staff of almond experts and exciting new ideas to showcase in its state-of-the-art exhibit booth. One of the focal points will be on almond ingredient use in European bakery products.

"We want our customers to be able to turn to us for new ideas about how to incorporate almonds into their products," Morecraft said. "Our expertise in almond ingredient use is unmatched in the industry." *Blue Diamond's* Director of



International Sales, Warren Cohen and Director of North American/Ingredient Sales Rich Holmes and their staff will be showcasing exciting applications for almonds at the upcoming SIAL Food Show in Paris.

"We are going to emphasize the use of sliced almonds, both blanched and natural slices," explained Morecraft. "Europeans are already used to blanched slices in their baked goods, but we would like to show them that they could use natural slices just as easily."

To accomplish this, *Blue Diamond* is teaming up with Swedish bakery Almondy, which specializes in almond tortes. The bakery will be presenting up a few different cakes to showcase



the use of various types of almonds. Their delectable creations will include an almond cake with blanched almonds, a second cake covered in milk chocolate and slivered almonds, and a third cake featuring dark chocolate and diced almonds.

"Europe is a long-established almond market, but we think there are opportunities to expand the 'almond horizon' for European customers and consumers alike," said Morecraft.

To read the Snack Food & Wholesale Bakery article in its entirety, visit: http://www.snackandbakery.com/articles/87342-blue-diamond-growers-dream-plant-cooks-up-healthy-almond-snacks



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Australian *Almond Breeze* Spokespeople Exemplify Healthy Lifestyles

Two new spokespeople for *Almond Breeze* in Australia are living and breathing *Blue Diamond's* healthy lifestyle message and spreading that creed to their fellow Australians. Professional bodysurfer Dave Winchester and blogger Lola Berry are the perfect fit for communicating how *Almond Breeze* can make "healthy living a breeze."

Lifestyle and food blogger Lola Berry, as *Blue Diamond's Almond Breeze* Australian brand representative Roger Ringwood describes her, "is a very bubbly, Aussie female Jamie Oliver," referring to the upbeat English celebrity chef. On her website, www.lolaberry.com, Berry is described as "very colorful, very passionate and very Australian," qualities that make her a model spokesperson for *Almond Breeze*. Among other topics, she is known for her exciting, healthy recipes and health tips.

Professional bodysurfer Dave Winchester is a fun brand spokesperson, said Ringwood, because the public doesn't expect a surfer to be "waxing lyrically about a product." Just like in California, surfing is a big sport in terms of interest in Australia. Having Winchester on board is a way to tell the public "big strong athletes are just as interested in healthy alternative products as anybody else."

"Australians, in general, are very interested in living healthy lives and our brand is very in tune with that sentiment,"

said Ringwood, who is based in Sydney, Australia. "We've positioned and presented *Almond Breeze* to the Australian consumer as being right in step with their healthy aspirations. Since our initial launch in this country nearly two and a half years ago, we have focused on generating awareness through calculated public relations efforts and our new spokespeople are the perfect example."



In one 30-second video, Berry is shown hosting five friends for a meal, where each dish incorporates *Almond Breeze*. She's made muffins and a frittata,

and serves coffee with *Almond Breeze* on the side. Her friends react positively to the taste test. "To be honest, I never would

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have thought to put *Almond Breeze* in a frittata, but I think it works really well," said one friend. Another friend "really enjoyed" his coffee with *Almond Breeze*, although he admitted he wasn't sure what to expect at first. A third friend summed up the general sentiment with, "Yeah, it's good! I like it!"

In a second video featuring Berry, she takes the viewer through her morning routing – a walk on the beach, yoga and an *Almond Breeze* breakfast



Healthy Living's

smoothie.
"Almond Breeze
is a huge part
of my healthy
lifestyle," she
says. "To me,
being healthy is
just showing up
and being the
best that you
can be."

Winchester's video tells his story about





incorporating *Almond Breeze* into his family's routine. The video shows him bodysurfing with his family watching from the sand. He says, "When I became a father, I made a conscious decision to bring up my kids with a healthy lifestyle. *Almond Breeze* fits our active lifestyle perfectly. It was an easy decision to make the switch to *Almond Breeze*."

The video goes on to show Winchester with his family around the breakfast table, pouring *Almond Breeze* into cereal bowls. "It's pretty simple," he continues. "It fits in with our healthy, active lifestyle. The kids love the taste so we're using it all the time. I just wish it was around when I was a kid. It's a healthy choice and it tastes great too!"

According to Ringwood, Australians are always on the look out for products that are one or more of the following: low in fat, low in calories, lactose-free, gluten-free and low on the glycemic index. *Blue Diamond Almond Breeze* hits all of those targets, making it a popular product not only among consumers, but also a hit in the major retailers in the country. The brand has experienced fantastic growth, 138 percent year on year, and has received great media coverage.



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"Since the brand launched, 90 percent of related media titles in Australia have featured *Almond Breeze* in some fashion," Ringwood said. "Editorials and influencers like Lola Berry and Dave Winchester talking about the brand leads to things like magazines asking us for recipes, which give reassurance to the public that this is a wholesome, natural product."

TURLOCK TEEN TURNS UNIQUE SPORT INTO PASSION

In California, just like in several other states, there are certain high school sports that not all students are exposed to. One of those is the javelin, a track and field event where an athlete throws a spear about 2.5 meters in length as far as possible. For 15-year-old Cerah Moren, great-granddaughter of *Blue Diamond* grower Lee Moren of Turlock, the javelin has been her passion for as long as she can remember.

"My dad introduced me to all the track and field events when I was very little," she explained. "I chose javelin because I was good at it and it's unique. Not many people do it."

That's because the javelin throw is banned in California high schools. The California Interscholastic Federation (CIF) ruled the javelin throw too dangerous for high school competition and banned its use for all CIF-sanctioned meets. Currently, for fear of liability, the javelin throw is not an event in high school competition in 36 states, though USA Track and Field youth competitions for the same aged athletes do hold javelin competitions.



Without a team at Pittman High School to compete with, Moren, with her father as her coach, travels far and wide to compete in track and field meets. Typically, athletes don't get exposed to the javelin until college, which is where Moren gets a leg up on the competition.

"Around the second or third grade, I remember my biggest win was at Junior Olympics, the youth Olympic competition. I remember I got first and it was a big deal. I hit a personal record that day and then I got the world record for 10 and 11-year olds!" she said of one of her most memorable meets.

Another memorable experience was her international training in Pihtipudas, Finland, at age 12. She was able to learn and compete with the best javelin throwers Finland could offer, and that's saying something. After all, Finland leads the world in overall Olympic medals in the javelin throw with 25!

Back at home, Moren has competed in large competitions across the United States. She competed at the Penn Relays, a nationally televised meet for high school, college and professional track and field athletes. For Junior Nationals, which she equated to an Olympic-like event for youth athletes, she competed in Oregon at just 14-years-old.

Although she is just entering her sophomore year of high school, she has entertained attention from several colleges interested in her athletic ability. "There have been a few schools that have asked me to visit them and would like to see me compete at some point. I've also received letters from Hawaii and UCLA, and have spoken with the San Francisco State track coach who invited me to compete at one of their meets," she explained. "But I'm still exploring my options. I haven't really thought about where I would like to go yet."

Just like other high school sophomores, Moren is looking forward to turning 15 and a half and receiving her learner's driving permit. "My uncle works for the family farm and he told me that if you work on a farm at age 15, you can get your license earlier. So if that is true and if it lets me get a driver's license sooner, I'm not going to turn that down!"

"Cerah has been my little almond blossom since the first day she visited the ranch," said her greatgrandfather Lee







Moren, *Blue Diamond* grower since the 1970s. "From the time she was old enough she loved to ride the ATV with 'Papa' to check the bees and the trees. Cerah continues to amaze me as she grows and matures. She will always be my almond girl and I will always be her 'Papa."



ALMONDS ARE AMERICA'S NEW FAVORITE NUT

The Washington Post's popular "Wonkblog" reported last week that "America has a new favorite nut," citing USDA figures that the country's appetite for almonds has grown by more than 220 percent since 2005. That growth rate is much faster than demand for pecans, walnuts, macadamias, pistachios, cashews or peanuts.

In fact, the article notes, almonds have surpassed peanuts in popularity. "In 2012 Americans ate more almonds per capita than shelled and unshelled snack peanuts combined (not including peanut butter)," according to a USDA report 'Economic Research Service 2012 Food Availability Per Capita Data.'

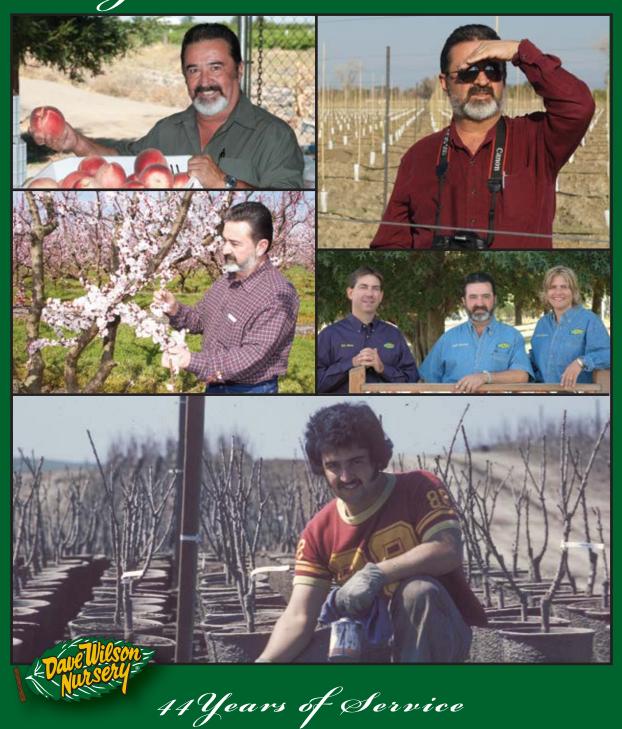
The article attributes almonds' growing popularity to nutrition research and changing consumer perceptions of fat, falling demand for meat, an increasing interest in plant-based protein sources, and increasing demand for convenient, satisfying and nutritious snacks. It adds, "The Almond Board of California happily touts the nut's nutritional benefits prominently on its website. No wonder no other nut is considered as nutritious by consumers."

"Almonds have become so popular that they're now creeping into just about everything we eat," the article reports. "Almond milk now accounts for nearly 5 percent of national milk sales, and almond butter can now be found on supermarket shelves around the country. Even almond flour is making its way into the limelight on the heels of the nation's gluten-free kick."

To read the whole story, go to www.washingtonpost.com/blogs/wonkblog/wp/2014/08/06/the-rise-of-the-american-almond-craze-in-one-nutty-chart

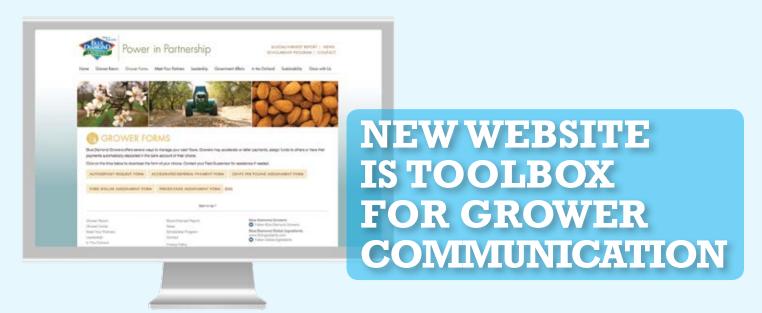


Javier Camarena



Farewell Javier -- thanks for making your career at Dave Wilson Nursery. You were a cornerstone to the nursery industry and a blessing to us all, you will be missed.

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Welcome to the new home of *Blue Diamond's* website for growers: www.bluediamondgrowers.com. The new and improved site brings together the best information for *Blue Diamond's* grower-owners to learn about their cooperative, locate information about their business and offer convenience as a one-stop-shop for the latest cultural or industry news. With bright, colorful pictures and movement, the site is a value-added tool in the cooperative's communications toolbox.

The idea for a new website, which is also optimized for tablet and smartphone use, stemmed from the increasingly fast-paced flow of information that *Blue Diamond* wants to share with its membership. "We have Almond Facts that comes out six times a year, Update Newsletter that comes out once a month, and our field reports, but what we needed was a way to get information to interested growers in a more timely manner," said Dave Baker, Director of Member Relations. "This website allows us to be in constant communication with our members."

Communication and transparent leadership is key to a healthy cooperative. As such, significant elements of the website highlight the individuals that interact with *Blue Diamond's* membership most often: the Member Relations Department and the cooperative's leadership. Pictures and contact information are readily available for each field supervisor, allowing current and prospective growers to contact their membership partner freely.

Biographies and pictures of President and CEO Mark Jansen and Chairman of the Board Clinton Shick kick off the "Leadership" page. Here, visitors will also find information about the levels of leadership within the cooperative: the Board of Directors, Liaison Committee and Advisory Committee.

From a business standpoint, the website offers growers information about their grower return as well as an opportunity to download forms to manage potential cash-flow needs. Under the "Grower Return" tab, visitors will find descriptions of Blue Diamond's various payment plans and programs, from the Standard Payment Plan to information about Quality Premium Payments. Under "Grower Forms," downloads for popular forms such as the AutoDeposit Request Form or the Accelerated-Deferral Payment Form. "We wanted to put this information directly into the hands of growers so they don't have to wait for their field supervisor to deliver a form," Baker said.

Perhaps one of the most popular features of the new website will be the industry news available through various tabs on the site. The Bloom/Harvest Report is one of the most popular items on *Blue Diamond's* website, where visitors can read a regular report on field and crop conditions throughout the growing regions of California. From the News

tab, visitors will find Almond Facts magazine, as well as other resources, including the Update Newsletter, Almond Insights blog and updates from the National Agricultural Statistics Services. These news-related efforts are all in place to make sure *Blue Diamond's* members are in the know when it comes to any and all almond industry news.

Rounding out the website is the Government Affairs section. Information found here features the cooperative's government affairs strategy as well as information about Blue Diamond's political action committee. Visitors interested in receiving more information about the political action committee can fill out a form to receive more information by email or regular mail. Another useful tool found under Government Affairs is a way to find and contact elected officials. Just type in an address and a list of government officials will appear, allowing the visitor to contact one or all of them on a particular issue. It's that easy!

Blue Diamond hopes the new website will prove a useful tool for its membership to continue to be engaged with the latest cooperative news. Check it out at www.bluediamondgrowers.com.



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Agricultural Council of California

EMILY ROONEY, President

State Legislature Shirks U.S. Constitution in **Development of Groundwater Bills**

"The State of California is an inseparable part of the United States of America, and the United States Constitution is the supreme law of the land."

- Constitution of the State of California.

This quote is in Article III, Section 1 of our state's constitution. Unfortunately, recent actions by the State Legislature make it clear that California adheres to the U.S. Constitution at its own discretion – specifically as it relates to separation of powers between the Executive, Legislative and Judicial branches of government. Additionally, promises of transparent and open government have been broken.

The recent passage of the package of groundwater bills clearly highlights this mindset. The U.S. Constitution does not apply in the creation of California's laws.

In California's legislative system, we often see various administrative agencies get involved with the legislative process. Ag Council has always had concerns with this comingling of duties, but with the drafting of the groundwater bills, it was a blatant disregard of our constitutional rights.

First, the authors of the bills accepted language from State Water Resources Control Board (SWRCB) staff that would improve their standing in existing litigation – blurring the lines between the Executive, Legislative and Judicial branches of government in one fell swoop.

Second, when private stakeholders had meetings in the authors' offices to seek changes in the bill, SWRCB staff was on hand for negotiations. Again, blurring the lines between the Executive and Legislative branches of government.

Finally, SWRCB attended and testified at the Appropriations Committee in support of the bill. Once again, the lines between Executive and Legislative branches have been blurred, and this is at a significant disadvantage to the farmers, ranchers and dairymen of the State of California.

Let's be clear — SWRCB staff was seeking broad new authorities through this package of bills. They were never going to be good-faith negotiators with us, or any stakeholders with differing points of view, unless our priorities match their agenda.

Additionally, the blurred lines were coupled with a process that lacked in transparency and accountability. In early August, we started seeing major amendments to the bills. SB 1168 alone was amended five separate times in August, including on the last day of the legislative session, and not one policy hearing was held on the bill in its final form. AB 1739 was amended four different times in August and a policy hearing was also not held after the August amendments were made. SB 1319 was a "gut and amend" measure, which came to light on August 28.

There was a fiscal hearing for consideration of the bills on August 28, but we were only given a few hours notice. The hearing began around 8:00 p.m. For interested parties not in the Capitol building at that time, they did not have an opportunity to participate in the only hearing considering the bills in almost their full context.

Even at this time, the bills were not fully developed. Final amendments to two of the three bills took place on the last day of the legislative session — the same day the bills were heard on the floor — August 29. The process was confusing and truly lacking in transparency on an issue fundamental to California agriculture. Simply put, this process is certainly not the appropriate way to make considerable changes to groundwater management in our state.

Groundwater issues are extraordinarily complex and must be thoroughly considered before new policies become law.

The truth is that the Legislature did not fully consider the extensive and serious implications of the groundwater bills. State legislators must take time to thoroughly analyze groundwater issues in a widespread public hearing process — similar to the process undertaken during the development of the water bond over the past year — before moving forward with legislation that makes the most significant changes to groundwater management in our lifetime.

At the onset of this process, the Administration promised us "a light touch." During the month of August, the scope of the bills grew beyond original plans set forth by the Administration. The "light touch" now comprises three bills creating an immense regulatory bureaucracy that will cost the agricultural community millions in fees.

Senior officials within the Administration did hear our concerns with the bills and attempted to improve the language and did so in many areas. They also gave us notice when they requested additional amendments of the legislation. However, the improvements do not go far enough.

If the Legislature had a desire to embark upon groundwater regulations and upend over 100 years of water law, the least we deserved is a transparent stakeholder process and an objective drafting of the bills.

For further information regarding these bills and other water related matters, please go to www.agcouncil.org/water.

* Please note, this article was written while the groundwater legislative package was pending on Governor Brown's desk. He has until September 30 to sign or veto the bills.







The Bee Box CHRISTI HEINTZ & MEG RIBOTTO

Unique and unprecedented partnerships have formed over the past year with the common goal of working to improve honey bee health. These partnerships include cooperative arrangements between bee interests and other government, corporate, academic and NGO sectors. At Project Apis m. (PAm), we have established and recently formed alliances with numerous universities and with Pheasants Forever, Costco, California State Beekeepers Association, Pollinator Partnership and Bee Informed Partnership. And in the July/August Bee Box, we discussed PAm's involvement in top level White House initiatives for honey bee health!

Blue Diamond Growers allows us to reach out to growers on the importance of pollinators. Topics in our Bee Box column range from honey bee nutrition, best management practices for beekeepers and growers, and hive strength inspections. New this summer is an exciting and official cooperative arrangement between PAm and Blue Diamond Growers with the launch of a full retail line of honey-flavored products from Snack Almonds to Nut Thins to Almond Breeze almondmilk. To show Blue Diamond's support for honey bee health, the "BeeCause We Care" campaign was unveiled and along with these new products is Blue Diamond's donation to PAm of \$100,000 to fund honey bee research now that is a sweet deal!

As a member of *Blue Diamond Growers*, you should know just how Project Apis m. goes about funding honey bee research. In the past eight years since our inception, PAm has developed a successful model for funding quality research and science-based solutions to honey bee challenges.

Figure 1: Project Apis m.'s Process for Funding Honey Bee Research.

Prioritize Honey Bee Research Needs

PAm Call for Proposals

PAm
Scientific
Advisor Review and
Recommendation

PAm
Board of
Directors
Approval

Honey Bee Research Funded Project Apis m.'s method for funding honey bee research starts with our mission: to direct research that will enhance the health and vitality of honey bees while improving crop production.

Blue Diamond's contribution to PAm for research will help meet that goal. And more specifically, PAm has designated this funding for projects that meet the following objectives:

- Provide practical solutions for almond growers and for managed honey bee colonies
 - Yield results that can be efficiently transferred into field practice
- Deliver an excellent rate-of-return for beekeepers and growers

PAm's Call for Proposals, with the stated objectives above, was sent to scientists coast-to-coast. The next step in the process that is currently underway at the time of this writing is to have PAm's Scientific Advisors review the proposals that were submitted by the August deadline.

PAm's Scientific Advisors, approved by the board of directors, are evaluating each of the submitted proposals for their scientific merit. Additionally, they are rating proposals for their relevance, specificity, and practicality:

Relevance – How relevant is the project to improving honey bee health?

Specificity – Will this project specifically help almond growers?

Practicality – Will this study result in good, practical solutions assisting almond growers using managed bees?

Finally, the Scientific Advisors are assessing whether the research study funding request matches the experimental procedure and objectives.

After review by PAm's Scientific Advisors, the proposals and their ratings will be reviewed by PAm's board of directors, all of whom are

PAm's Scientific Advisors



♠ Dr. Frank Drummond, Professor of Insect Ecology and Insect Pest Management, University of Maine



♠ Dr. Gordon Wardell, Director of Pollination Operations, Paramount Farming Company





↑ Jerry Hayes, Commercial Director, Beeologics, Monsanto Company



♠ Dr. Eric Mussen, Extension Apiculturist Emeritus, UC Davis

beekeepers or bee brokers. In addition to being involved in honey bees, several board members are growers and farmers.

The final slate of proposals for *Blue Diamond* funding will be *Blue Diamond*-approved. Project Apis m. is using the *Blue Diamond* funding to seek matching corporate funding from other entities interested in honey bee stewardship and sustainability. We believe there will be several worthy projects to fund.

A sneak preview of submitted honey bee research projects includes studies to develop better field diagnostics for honey bees so we can evaluate colony strength more quickly and efficiently on-the-spot. There are proposals that seek to assess viruses in general, specific viruses, and a proposal to improve pathogen identification.

One study plans to develop infra-red imaging for assessing hive strength and augmenting visual grading of colonies. There are proposals to improve honey bee stock, improve nutrition prior to almond bloom, and look at the impact of transporting colonies to almond pollination. Finally, for the honey bee nemesis Varroa mite, research has been proposed to look at delivery systems for mite controls such as organic acids and essential oils.

PAm received over \$325,000 in proposals by the deadline for the \$100,000 available in *Blue Diamond* funding, and we are seeking additional funding to augment *Blue Diamond's* donation as there are numerous worthy proposals that can ensure almond growers a sustained supply of honey bees for almond pollination. For the February 2015 bloom, 1.7 million honey bee colonies will be required to pollinate the almond crop.

Blue Diamond's "BeeCause We Care" honey product line raises consumer awareness and the importance of honey bees while showing Blue Diamond's commitment to bee research. Tell all your friends the new snacks are sweet as honey and will keep you and the honey bees healthy! Thank you to your co-op and for the continued support.



Time To Consider DAVID DOLL

Editor's Note: David Doll works as a tree nut farm advisor for the University of California Cooperative Extension. He is based out of Merced County. Since starting his job in 2008, David has been involved in many aspects almond research including rootstocks, fumigant selection and use, and young orchard development. He is looking forward to contributing regularly as an author for this column, "Time to Consider."

Orchard Removal: Preparation and Planning

Orchard removal and replanting is critical to almond operations. Although the lifespan varies, at some point the decision is made to remove the entire orchard and start anew. The removal process should not be rushed, as care must be taken to prevent cultural mistakes that will haunt the new orchard for its 20+ years of existence.

Once the decision is made to replant an orchard, old trees need to be removed. Trees are removed through the use of tub grinders, by burning, or by wood cutting crews. Tub grinding is the fastest method, but there can be a considerable waitlist in some years. Small orchards or blocks (less than 15 acres) may be granted a burn permit, pending approval of the local air resource board. Wood cutting crews take more time, and stumps will still need to be removed and disposed.

After the trees in the orchard are removed, the field needs to be shallow ripped and spring-toothed to remove as many of the old roots as possible. These roots harbor soilborne diseases and pests, such as nematodes. Three or more ripper passes are commonly made. In some instances, more severe soil modification will be needed to overcome dense subsurface soil layers. A backhoe can be used to dig pits to determine the extent of limiting layers.

If plowpans, hardpans, or fragipans are observed, ripping can help "shatter" these layers. In cases of clay lenses and soil stratification, slip-plowing may be of benefit. The shank needs to be 1.5 times deeper than the deepest limiting layer. For example, if a hard pan is observed at 3-feet deep, a ripper shank of 4.5-feet will be needed to shatter the hardpan. Backhoeing is also an option and should be considered in sandier soils. The complete mixing of the soil profile by backhoeing promotes tree growth and increases the efficacy of soil fumigant treatments in both new and replanted orchards.

Research indicates that in some circumstances, however, soil modification may not be as necessary as once thought. In a comparative trial at the Nickels Soil Laboratory near Arbuckle, CA, a microspinkler-irrigated almond orchard that was pre-plant slip-plowed has not out yielded an unmodified, microsprinkler-irrigated control orchard. This lack of difference is thought to be due to the use of a low volume irrigation system (microsprinkler or drip), which provides the ability to control water applications and the wetting profile depth within the soil, minimizing the impact of soil saturation occurring at the interface of soil layers. Orchards planned to

be flooded or irrigated with solid-set sprinklers (higher volume irrigation systems) should still be modified if a backhoe pit analysis indicates the need. Modification on very shallow soils (less than 2.5-feet to first soil layer) is recommended.

Nematode Sampling and Pre-Plant Management:

Nematode sampling is another important task before replanting, but it can be tricky to get consistent results when collecting samples. Samples should be taken once the soil begins to cool in October. For best results, multiple soil samples should be taken, with a minimum of one sample per soil type present in the orchard. If soils are relatively uniform, two to three samples should be made for fields smaller than 60 acres. Five or six samples are needed for larger uniform fields. A composite of five to seven different spots within the soil type or field quadrant should be pooled (mixed and combined) as one "sample." Soil samples should be taken at a depth of 15-inches to 20-inches within the rootzone of the tree. Once enough samples have been collected, they should be placed in a properly labeled bag, kept cool and out of the sun, and submitted to a lab to conduct the nematode analysis. The University of California Cooperative Extension has information online describing sampling methods in more detail (www.fruitsandnuts.ucdavis. edu/almondpages/almondorchardmanagement)

Ring, lesion, and rootknot nematodes are the major group of species of concern in almond orchards. Historically, rootknot nematode was a significant problem until resistant rootstocks were developed. As the name suggests, rootknot nematode causes galls or knots to form on the roots, leading to reduced productivity and low vigor. Many — but not all — modern rootstocks are resistant to rootknot nematode. Rootstocks 'Lovell,' 'Krymsk-86' and 'Paramount,' or 'GF677,' are known to be susceptible to this devastating pest. Ring nematodes, which are more common in sandy soils, can cause severe stunting in almond trees as well as predispose the tree to bacterial canker. There is no true resistance to ring nematodes in current rootstocks, but 'Viking' and 'Lovell' appear to be the most tolerant.

Lesion nematodes are a particularly tiny type of nematode found in all soil types. It causes stunting of trees that impacts vigor and yield. Typically, trees with high inherent vigor are able to "outgrow" the stunting caused by this nematode. Therefore, more vigorous rootstocks (e.g. peach x almond hybrids) tend to be more tolerant of lesion nematode.

If sampling reveals high counts of nematodes, soil disturbance, cover-cropping or soil fumigation with





Telone-II containing fumigants should be considered. Although exact thresholds for nematodes have not been determined, I recommend preplant fumigation if the average of counts from the field samples for ring, lesion, and rootknot are over 25, 50 and 50 nematodes per 500g of soil, respectively. These approximate thresholds are lower if planting to susceptible rootstocks (e.g. 'Lovell').

Cover cropping with non-host plants can help reduce nematode populations as well as improve soil structure. Examples of non-host cover crops include: true Sudangrass (not hybrid Sudangrass), barley, Merced Rye, Blando Brome, and Salina Strawberry Clover. Soil disturbance through backhoeing of tree sites appears to reduce populations in some trials. Broadcast fumigation with Telone-II containing fumigants should be considered if populations are especially high. Planting with resistant rootstocks is also recommended for the fields with high soil nematode counts.

Prunus Replant Disease and Management

Prunus Replant Disease (PRD) has been found in nearly every orchard location that has had successive plantings of any Prunus species (peach,

cherry, plum, almond, etc). This disease is thought to be a complex of soil fungi that reduce fine feeder root development, leading to stunted growth and in severe cases, tree death. Pre-plant soil fumigation, cover cropping and soil modification appear to reduce the severity of this disease. In multiple trials across the state, fumigants containing chloropicrin have outperformed the non-fumigated control. The results have been the most favorable on sandy loam or coarser soils. Research has not found any comparable alternatives to fumigation, and thus soil fumigation with chloropicrin containing fumigants should be considered when back-to-back plantings of any Prunus species is planned.

"The One-Two Punch"

In certain parts of California, orchards replanted into ground with the presence of

Continued on next page »



nematodes (usually ring) and PRD are severely stunted and fail to be highly productive. These soils should be fumigated with either a broadcast Telone-II treatment or a rowstripped Telone-II C35. These treatments are expensive, but multiple trials have found that fumigated trees have produced nearly double the non-fumigated control within the first three years of harvest (third through fifth leaf), which more than compensates for the upfront fumigant expenses.

Considerations for Established Orchards

Within established orchards, the options for managing nematode and PRD are more limited. Dr. Michael McKenry, UC Nematologist emeritus, has found that Spirotetramat (Movento®) can reduce populations of nematodes in almonds and walnuts. Observations from within the field have been favorable. Bayer CropScience, the manufacturer, suggests applying this product as a foliar spray in the spring and fall on blocks severely impacted by nematodes.

Because the product is applied to the leaves but operates against pests in the roots, it is critical to mix Movento® with a penetrating adjuvant so that it is absorbed by the leaves, where it will be translocated via the phloem down to the roots. Similarly, spring and fall sprays should be applied when there is adequate canopy cover. Other products are also available or in development, and field tests are underway. Hopefully, we will have more products in the near future.

For PRD, there aren't any chemical options for control. Proper irrigation management and spoon-feeding of nutrients may be of benefit. Work by Dr. Bruce Lampinen and colleagues found that trees within PRD-affected fields are often overirrigated, which stunts growth.

Trees need to be irrigated to match the water demand, which means smaller trees will require less water than larger trees. Since the root system is affected, very small amounts of fertilizer applied frequently may help increase growth. Studies have shown that small trees require less nitrogen than what is usually applied (~25-30 pounds per acre) for the growing season, if applied to the root system of the tree.

PRD and nematodes are best managed with pre-plant actions. Schedule and take the proper amount of time to remove and prepare the orchard prior to fumigation. If the timing of harvest or other factors prevents the ability to properly prepare the orchard as I've described, it may be best to delay planting considering that a new orchard is a 25-year investment and commitment.



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*The Scoop, UC Publication March 2014 Volume 19.2 by Roger Duncan †Results from UC rootstock trial in Turlock, California

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