



—INDUSTRY NEWS—

BENEFITS OF TOMATO PHENOLS SURPASS THOSE OF COCOA FLAVANOLS AND PLANT STEROLS

New Tomato Foundation study shows market potential of tomato phenols

Tomatoes have always laid claim to health benefits such as the reduction of cholesterol levels, lowering hypertension, and providing consumers with the powerful antioxidant lycopene. In addition to those already known, The Tomato Foundation has discovered another strength of the tomato: tomato phenols. According to their research, these phenols may have a significant impact on the world of tomato products.

Health conscious older consumers and healthy food conscious Millennials are driving the food industry to focus on natural, healthy benefits of products and ingredients, and to create new premium products that can replace medications like statins and blood thinners. This industry trend makes the tomato industry perfectly positioned to take advantage of the current market environment.

According to NIZO Food Research (commissioned by The Tomato Foundation), "Tomatoes, fresh or cooked, can improve blood circulation, boost heart and vascular health and reduce the risk of stroke or deep vein thrombosis. The summary of a recent report claims that just two medium size tomatoes or a single serving of 100ml of tomato juice, tomato soup, pasta sauce, or similar tomato product... provide a strong beneficial effect for improved blood circulation."

Health benefits of cocoa flavanols were used to gain an official European Food Safety Authority health claim. Cocoa

and chocolate manufacturer, Barry Callebaut, has experienced strong economic growth after the EFSA's recognition of cocoa flavanols' effect on blood flow. Danone and other companies have also experienced growth from the EFSA health claim for plant sterols in the reduction of LDL cholesterol.

Leveraging the value of the EFSA's health claims demonstrates the food industry's focus for science-based innovations, ones which add value for consumers in both traditional products and new, single dose product categories.

The Tomato Foundation's Health Claim project is progressing to its second phase towards gaining a 13.5 "New Function" EFSA health claim for tomato phenols and improved blood flow. Having already been awarded a health claim for improved blood flow in 2009 (relating to an extract made from tomato paste called Fruitflow), The Tomato Foundation is ready to replicate that success.

All the bioactive compounds in the extract are present in more than just tomato paste, such as in other tomato products like crushed, diced, juice, soups and sauces.

The Tomato Foundation will reference this existing health claim trial data, which recently reached a 5-year proprietary period. This will be the core of the new application to EFSA. 90% of the research is already done; only two additional phases of action are still

required:

Phase 2: Product sample study to establish chemical uniformity in tomato paste and products and **Phase 3:** Two new human nutrition trials.

The Tomato Foundation aims to submit the health claim dossier to EFSA in 2019/20.

The data from the successful EFSA claim will serve as the scientific basis needed for an FDA Structure/Function health claim in the US. The ability for manufacturers and marketers in the US to use an official FDA health claim may help boost the industry.

Leading industry representatives have already described this project as a potential "global game changer" or "silver bullet" with the power to influence consumer opinion and consumption as well as add value across product categories.

In a world where labeling laws typically force producers to warn consumers against a product's potential harms, EFSA and FDA health claims may help counteract consumer fears through positive labeling.

The Tomato Foundation is looking for help from the international tomato community to further their efforts. For further information, please visit The Tomato Foundation website:

www.tomatofoundation.org/index.php/en/redroom 🍅

—CALIFORNIA CROP—

TONNAGE CONTINUES TO DECLINE IN 2017

Theodore Roosevelt once said "Do what you can, with what you have, where you are." That sentiment was echoed in this year's processing tomato season.

A very wet winter created difficult planting and scheduling conditions, followed by a spring and summer characterized by durations of extreme hot weather. While most Californians were happy with the rain, which eased concerns of drought, growers and producers struggled with adapting to the atypical climate and growing conditions.

California processors topped only 1 million tons processed per week for 2 weeks, as opposed to the previous 5 year average of 1 million tons per week for over 7 weeks. Based on the latest Processing Tomato Advisory Board estimate, growers will average almost 3 tons fewer per acre than the 5 year average of 48.4 tons per acre.

Not only were growers faced with difficult weather conditions, an increasing amount of Fusarium Race 3 Wilt appeared, lowering growers' yields. There are not yet enough high-quality F3 resistant varieties available; however, seed companies are committed to actively pursuing new F3

resistant varieties to solve this problem.

While many felt that the tomato field yields would be off due to the spring and summer weather, processors as a whole were still optimistic with their August projections that the crop would still be 11.5 mm tons, only 300K tons lower than the original projections of 11.8 mm tons.

The reality of the situation presented itself more prevalently during the middle and latter part of August, with processors recognizing the impact that June and July heatwaves had on crops. Final volumes came in at just under 10.5 million short tons processed. This represents a 17% reduction from the previous year.

Breaking that number down, we can see that this reduction is made up of a 15% decrease in conventional tomatoes and a 42% reduction in organic tomatoes. The decrease in organic tomatoes was a combination of the irregular growing season as well as processor adjustment to demand following the high level of organic tomatoes processed in 2016.

As a result of the wet winter, the reservoirs in California are in better shape than a year ago. The Northern California reservoirs are between 59%

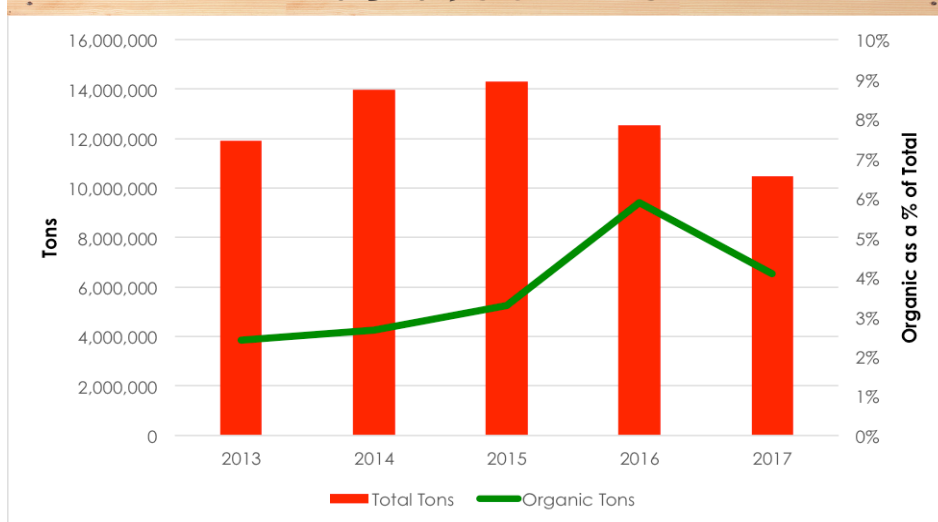
to 121% of historical average and 36% to 72% of capacity versus 59% to 99% of historical average and 33% to 59% of capacity a year ago. Work continues on the Oroville Dam spillway to get it repaired ahead of the rainy season. The central California reservoirs are between 124% to 180% of historical average and 53% to 84% of capacity versus 39% to 108% of historical average and 18% to 65% of capacity a year ago.

Growers are hoping for a normal to wet winter so that they can receive water allocations similar to the 2017 year, when State Water Project growers received 85% allocation and Central Valley Project farmers received 100% of their allocation. These allocations were much higher than the prior year when State Water Project growers received 60% allocation and Central Valley Project farmers received only a 5% allocation. The need for water storage in California should be even more apparent in a wet year like 2017 when over 48 million acre feet of water have flowed out to the ocean.

2018 looks like it will share similar dynamics as 2017 (when row crops that compare with tomatoes did not experience substantially increased sales prices or demand). Growers continue to convert some farm land from row crops to permanent crops for not only a potential for higher returns but also a reduction in labor requirements.

Mother Nature has surely aided California processors in adjusting the inventory in 2017. With high inventories after the 2015 season, processors are continuing to see contractions in the market. Intentions for 2018 have not yet been discussed, but with inventories still a concern, volumes will likely remain on the conservative side. 🍅

2013-2017 CROP TRENDS



—COLLEAGUE HIGHLIGHT—

LAWRENCE HENRARD

Lawrence was first introduced to Morning Star while working with Growers Transplanting, Inc (GTI). His mission at Morning Star is to efficiently provide tomatoes to Morning Star's processing facilities through Cal Sun's logistics, transplanting and harvesting operations in an environmentally and ethically responsible manner.

Lawrence lives in Salinas, CA with his wife, Lindsey, and their three children, Simon (age 13), Sophie (age 11), and Grace (age 9).

Before working at Morning Star, what was the most unusual or interesting job you've ever had?

The most interesting job that I've ever engaged with is, and remains, becoming a parent.

What are 3 words to describe Morning Star?

Excellence; commitment; trust.

What drew you to Morning Star originally?

The colleagues, the passion, the loyalty, and commitment to excellence.

What is on your wish list for the next 10 years?

To continue to grow as an individual from an emotional, intellectual, and spiritual standpoint. To collaborate with a group of colleagues with a passion for excellence and contribution to the enterprise, industry, and society. To put an end to world hunger, and starvation.

Tell me about your background (college, previous work experience)

Born and raised in Dakar, Senegal; I traveled and lived in New York, NY; Houston, TX; Brussels and Antwerp, Belgium; Nice, France; and finally,

Salinas, CA. I learned to speak and write Dutch and French at a very young age and was fortunate to be raised in a multi-cultural environment.

I attended and graduated from Cal Poly (SLO), where I received a BS in Agribusiness and an MS in Industrial Eng.

My first job out of college was with Amy's Kitchen, Santa Rosa, where I participated in a Supply Chain Management function. My wife Lindsey and I became pregnant with our first child and decided to move back to the Salinas Valley, where I was offered an employment opportunity with Tanimura & Antle, a Grower Shipper of fresh-cut vegetables, in a Supply Chain and Procurement role.

Several years later, I worked as General Manager, and later COO of American Cooling, a company specializing in the design, engineering, construction of commercial cooling facilities (cold storage facilities) across the USA and MX; as well as the management and coordination of all labor, equipment, and systems involved with the pre-cooling, storage, and distribution of our Grower partners vegetables and berries.

Eight years later, I joined Growers Transplanting as COO and later President, and it was now that I was first introduced to Morning Star. Three years later, I joined the DOLE Berry International Co. with responsibility for the global production and supply of the four-berry patch to domestic and foreign markets. I joined the Morning Star Co. in January 2017 with the mission of advancing and improving upon all Ag Supply Chain activities.

People would be surprised if they knew _____ about you.

I have a passion for learning new languages. I intend on learning Mandarin with my daughter Grace.

**What do you like to do in your spare time?**

I enjoy spending time with my wife and children, and supporting them in their academic, sports, and extracurricular activities.

What is your favorite movie and book?

Favorite movie: The Game, by David Fincher, Director.

Favorite book: The Intelligent Investor, by Ben Graham.

What's on your bucket list?

Continued happiness and intellectual growth, as well as a strong sense of contribution and achievement; mental, physical, spiritual, and financial health. 🍅



LOS BANOS

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WILLIAMS

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Williams, CA 95987
530 473-3600

SANTA NELLA

12045 S. Ingomar Grade
Los Banos, CA 93635
209 826-7100

OUR PRODUCTS

Hot Break Tomato Paste
(28% and 31% NTSS)
Organic Hot Break Paste
(31% NTSS)
Cold Break Tomato Paste
(31% and 37% NTSS)
Organic Cold Break Paste
(31% NTSS)

Concentrated Crushed
(26% and 28% NTSS)
Diced Tomatoes
(3/8", 1/2" and 3/4" cut)
Organic Diced Tomatoes
(1/2" and 3/4" cut)
Fire Roasted Diced Tomatoes
(1/2" and 3/4" cut)

Ground Tomatoes in Puree
Tomato Puree (1.07)
Chili Sauce
Ketchup
Sun Dried Tomatoes

SALES TEAM

Kelly Haywood 530 473-3626
Jennifer Ingram 209 827-7816
Derek Klein 214-478-8165
Paul Maxon 209 827-5518
Karolina Splinter 209 829-5090
Brandon Taylor 209 827-7831
Becky Wahlberg 209 827-5508
Greg Wuttke 209 827-5513
Robert Young 209 827-7830

CONTAINERS

300-gallon aseptic bag-in-box
55-gallon aseptic drum
StarPak (four 75-gallon bags-in-box)

FOR QUESTIONS

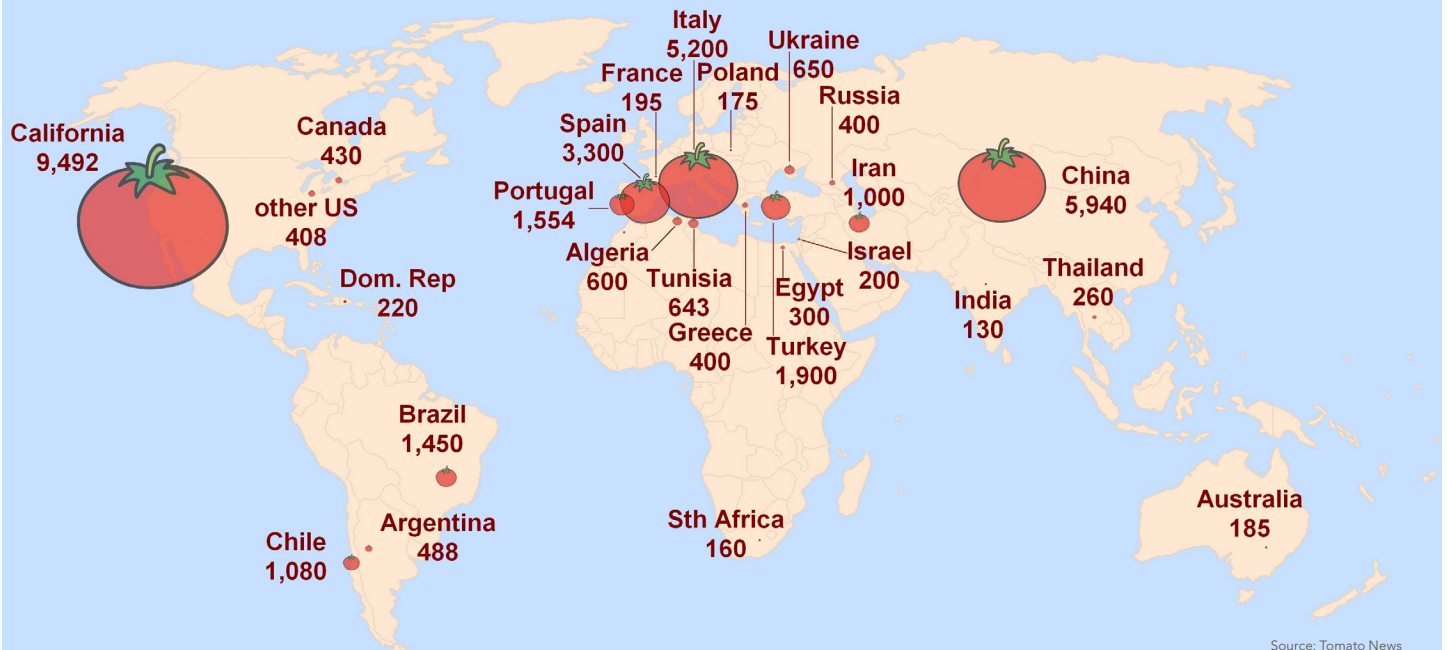
Email Karrie Rufer at
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—INTERNATIONAL CROP—

GLOBAL TOMATO PROCESSING AT A GLANCE

2017 GLOBAL TOMATO PROCESSING - 37.47 MILLION METRIC TONS

Global Tomato Processing in 2017: 37,47 million mT



Source: Tomato News