2016 - 2017



U.S. Highbush Blueberry Council Annual Report





his is my First letter as Chairman of the USHBC. I am only the Fourth chairman of this wonderful organization. I am humbled and honored to serve in this position.

I pray that I can live up to everyone's expectations of me.

I am a fourth generation blueberry farmer. That is kind of ironic that I am the fourth chairman and fourth generation farmer. I have always strived to help improve everything I am involved in. I am very active with Farm Bureau on the county, state and national levels. Without a voice in government we



farmers don't stand much of a chance of success. I serve as vice president of the North Caroline Blueberry Council. I am on our labor secretary's agriculture health and safety council. I am vice president of the National Berry Crops Initiative. I have a unlimited electrical license, and had an electrical contracting business for 20 years. Running a business and dealing with the public is something everyone should experience.

As we go forward in this great and exciting business, we face new challenges each day and each season. It is wonderful to know we have an organization of such knowledgeable people we can gain advice from. My hope is all involved in this business can appreciate the work that is being done each day to help all involved to succeed. As I get more familiar with my position, I am impressed with the level of expertise we have in the USHBC.

As we go forward if there is anything I can do help in any way please call on me. Thank you all for allowing me to serve you as your Chairman of the USHBC.

Chris Barnhill

Chris Barnhill Chairman U.S. Highbush Blueberry Council

Opportunity Knocks

s we continue to explore market opportunities our domestic consumer promotion campaign is taking a new approach this year and will now focus on moderate blueberry users, a market segment with significant growth potential, as our primary market target. At the same time we will also work to encourage heavy blueberry users (our secondary target) to also increase their blueberry consumption.

This strategy came about from a recently completed opportunity assessment research project conducted by the USHBC Promotion Committee. The project involved surveys of consumers, foodservice, retailers and food manufacturers to assess current and future opportunities for growing blueberry demand and is providing direction for our 2017 promotional program.



Through this research four consumer groups were identified by blueberry consumption levels and are broken out by Heavy Users (19 or more cups purchased in last twelve months in all forms), Moderate Users (6 to 18 cups), Light Users (1 to 5 cups) and Super Light Users (less than 1 cup). Based on this research, our greatest growth opportunity is with the moderate user segment.

Moderate users (about 25% of the population) believe fruit is healthy and should be a part of their diet. The good news is that blueberries are one of their favorite fruits. A key to expanding consumption by this group is to educate them on the year round availability of fresh and frozen blueberries as they tend to think of fruit available only during specific seasons. Moderate users also tend to buy the same foods regularly so we need to make blueberries a staple on their shopping list.

The survey respondents also indicated that they expect to increase their blueberry purchases this year compared to last while at the same time indicating that they expect to purchase the same amount or slightly less than last year of bananas, apples, strawberries, grapes, oranges and melons.

Opportunity knocks and we will continue to take advantage of our opportunities through well designed and implemented market promotion efforts both here at home and overseas again in 2017. Keep an eye out for our monthly Blues Briefs email newsletters for updates on USHBC market promotion programs and results.

Regards,

Mark Ullata

Mark Villata USHBC Executive Director

USHBC Executive Officers



Christopher Barnhill Chairman, North Carolina



Bill Braswell Vice Chairman, Florida



Pat Goin Secretary, Indiana



Parm Bains Past Chairman, British Columbia



Mark Villata Executive Director, California



Mark Hurst Treasurer, Oregon



Bill Steed Member at Large, California

U.S. Highbush Blueberry Council USHBC Members and Alternates - 2017

CALIFORNIA:	
FLORIDA:	
GEORGIA:	
MICHIGAN:	
NEW JERSEY:	
NORTH CAROLINA:	
OREGON:	
WASHINGTON:	
WESTERN REGION:	
MIDWEST REGION:	Member - Patricia Goin Alternate - Shelly Ann Hartmann
NORTHEAST REGION:	
NORTHEAST REGION: SOUTHERN REGION: HANDLER:	Member - Art Galletta Alternate - Dave Arena Member - Bill Braswell Alternate - Jerod Gross Member - Guy Cotton
NORTHEAST REGION:	Member - Art Galletta Alternate - Dave Arena Member - Bill Braswell Alternate - Jerod Gross Member - Guy Cotton Alternate - Risa Bakker Member- Francisco Allende
NORTHEAST REGION:	Member - Art Galletta Alternate - Dave Arena Member - Bill Braswell Alternate - Jerod Gross Member - Guy Cotton Alternate - Risa Bakker Member- Francisco Allende Alternate - John Johnston
NORTHEAST REGION:	Member - Art Galletta Alternate - Dave Arena Member - Bill Braswell Alternate - Jerod Gross Member - Guy Cotton Alternate - Risa Bakker Member- Francisco Allende Alternate - John Johnston Member – Brian Bocock Alternate- Brian Caster Member – Janice Honigberg
NORTHEAST REGION:	Member - Art Galletta Alternate - Dave Arena Member - Bill Braswell Alternate - Jerod Gross Member - Guy Cotton Alternate - Risa Bakker Member- Francisco Allende Alternate - John Johnston Member – Brian Bocock Alternate - Brian Caster Member – Janice Honigberg Alternate – Andrew Maiman Member - Bo Slack
NORTHEAST REGION:	Member - Art Galletta Alternate - Dave Arena Member - Bill Braswell Alternate - Jerod Gross Member - Guy Cotton Alternate - Risa Bakker Member- Francisco Allende Alternate - John Johnston Member – Brian Bocock Alternate - Brian Caster Member – Janice Honigberg Alternate – Andrew Maiman Member - Bo Slack Alternate - Tom Bodtke
NORTHEAST REGION:	Member - Art Galletta Alternate - Dave Arena Member - Bill Braswell Alternate - Jerod Gross Member - Guy Cotton Alternate - Risa Bakker Member - Francisco Allende Alternate - John Johnston Member - Brian Bocock Alternate - Brian Caster Member - Janice Honigberg Alternate - Andrew Maiman Member - Bo Slack Alternate - Tom Bodtke Member - Jorge Andres Varela Alternate - Felipe Juillerat

Health Research Annual Report

f you or your friends have heard that blueberries have many health benefits and are good for you, then both the USHBC Research Committee and the USHBC Promotion Committee have been meeting their goals.

For a number of years, the mission of the research committee has been:

- To generate research findings on the health benefits associated with blueberries and collaborate with the industry to ensure they are continually communicated to consumers

Although we are never certain of what topic will be of interest to the media at a given time, we continue to fund promising studies that explore the health benefits of blueberries. Once the study is completed and published by the researchers in a scientific journal, we can work with Padilla, our PR agency, to inform media writers, supermarket dietitians and other communicators about new research findings on the health benefits of blueberries. They in turn will help get the message out to the public. We always work with the USDA to make sure our message about our findings are not

Dave Brazelton Chairman, USHBC Health Research Committee, Oregon

overstated and that they are clear to the average consumer.

Currently, we have several ongoing research studies in different stages of progress. We continue to look at the potential wide range of health benefits of blueberries including cognition, oral health, diabetes, exercise, cardiovascular health, inflammation and cancer.

The Health Research Committee is made up of committed industry members from across the country along with technical experts in the field. It is complicated work to carefully read and evaluate research proposals in emerging science.

In order to ensure that we continue to fund scientifically sound studies and that we keep abreast of advances in the constantly changing scientific world of nutrition and health, we have formed a Scientific Advisory Board of established scientists who can advise the Research Committee.



Some examples of topics that the media covered this past year.

Health Research

This will be our first year of working with the Board which consists of:

Dr. O'Toole, Professor of Microbial Genomics. His research focuses on intestinal bacteria in humans with an emphasis on diet-microbiome-health interactions. In recent years, he has coordinated and participated in several major projects that examine the composition and function of the gut microbiota, its reaction to habitual diet, and its relationship to health, functional gastrointestinal disorders and aging. The ultimate aim of these investigations is to develop novel therapeutics, foods and food ingredients to program the intestinal microbiota towards promoting health.

Dr. Cassidy, Professor of Nutrition and Head of the Department of Nutrition and Preventive Medicine at Norwich Medical School/University of East Anglia. She is a Fellow of the Society for Biology and the Royal Society of Chemistry. Her research focuses on understanding the impact of plant bioactives on cardiometabolic health, and she has conducted many human studies looking at the health effect of flavonoids, anthocyanins and polyphenols.

Dr. Rimm, Professor of Epidemiology and Nutrition and the Director of the Program in Cardiovascular Epidemiology at the Harvard School of Public Health and a Professor of Medicine at Harvard Medical School. His research group focuses on the study of diet and lifestyle characteristics in relation to cardiovascular disease. He also works on public health nutrition research to study the impact of nutrition policy in schools on the diets of school children and on the impact of food stamps on dietary habits.

Dr. Lampe, Full Member and Associate Division Director in the Public Health Sciences Division at Fred Hutchinson Cancer Research Center and a Research Professor in the Department of Epidemiology at the University of Washington in Seattle. Her research focuses on the effect of diet constituents on cancer susceptibility in humans and the effects of genetic variation on response to diet. In addition, her lab studies the modifying effects of the gut microbiome on phytochemical metabolism and disease risk.

The Health Research Committee is excited about the quality of research studies blueberries are involved in this year. This super food continues to amaze us with the ever-broadening range of health benefits they offer. Employing the best science conducted by world-leading research institutions will continue to keep them in the news, and in front of your customers and our consumers.



Dr. Paul W. O'Toole from the University of College Cork, Ireland



Dr. Aedin Cassidy from the University of East Anglia



Dr. Eric Rimm from Harvard University



Dr. Johanna Lampe from the Fred Hutchison Cancer Research Center at the University of Washington



Attendees at the 2017 Spring Meeting of the USHBC Health Research Committee and Scientific Advisory Board – Napa Valley, California

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USHBC Crisis Communication Program

()// hy in the world do we need crisis communication? We haven't had a crisis."

On the chance that you have asked yourself that question, please give us a couple of minutes. You're not alone. There are some big, powerful organizations that still do not know how they would respond when the roof comes crashing down. Some just don't think it will ever happen to them. A 2002 survey of Fortune 500 companies revealed that only 30% had crisis management plans. Obviously, that number has improved since then, but much remains to be done.



Eight years ago the USHBC and NABC leadership recognized the need to do some post-crisis planning and training. We contracted with crisis communication consultant USHBC Good Practices Norm Hartman of TMT Worldwide. The first step was to identify the possible sources Committee, New Jersey of food safety problems in blueberries. To do that, we conducted what is known as a vulnerability audit. Leaders from USHBC/NABC gathered and listed potential threats for blueberries.

Denny Doyle, Chairman

We then built a communications plan around five of the most impactful possible sources. The plan provided likely questions and responses in terms the public would understand. That information, and other supporting data that may be useful during a crisis, was assembled in binders that have been provided to staff members who may be dealing with the media and the public if there were to be a need.

Meanwhile we installed a video camera and a backdrop with blueberry logos at the Folsom office. Mark Villata now feels comfortable in front of the camera. If the need arises, we will be able to offer current situation updates to media around the world from the Folsom office.

We also anticipated the need to be able to respond to local and regional media, particularly those in areas where blueberries are a major commercial product. Growers and others in the industry were trained to respond to reporters. (It's not as easy or simple as it may look.) Those sessions, which take place at the regular USHBC/NABC biannual meetings, have developed a cadre of industry spokespersons, men and women, capable of handling even the most difficult situations.

As this was progressing we developed a website that would serve two purposes. During normal times, it is a source of current information about the blueberry industry. (You can find it at "bluesroom.com".) If we were to have a food safety issue, it would be activated as the primary source for information among media and the general public, and would be updated frequently.

All in all, we believe we are as ready as we can be for what we hope will never be needed.

OUTREACH EFFORTS

he Industry Relations Committee continues their outreach effort to generate awareness of, and to educate industry members on the functions and activities of the USHBC. Through the Blueberry Ambassador Program industry members are invited to attend and observe USHBC and North American Blueberry Council (NABC) meetings and gain a better appreciation of these programs, which will hopefully lead to their consideration of future participation.

This educational program is intended to bring new individuals from throughout the industry (both domestic and foreign) into the Council and is funded by both the USHBC and NABC, (Ambassadors are reimbursed for meeting travel expenses and tours of blueberry fields).



Bo Slack Chairman, USHBC Industry Relations Committee, Washington

USHBC and NABC Members are asked to propose new growers and marketers for a possible invitation to a USHBC Meeting as one of up to four new Ambassadors per meeting. The Ambassador Program will prioritize the sponsoring of a diverse base including our next generation of blueberry growers and marketers with the goal of promoting their future industry participation.

Each year up to four Ambassadors will be invited to any one USHBC meeting. Priority will be given to up to three Ambassadors from the region where the "grower location" meeting is being held (Eastern Region, Southern Region, Midwestern Region or Western Region) with one other Ambassador considered from any other region (within or outside of the U.S.). The USHBC Industry Relations Committee will solicit the help of USHBC, NABC and industry members from the specific region to identify possible Ambassador nominees from their regions. If an Ambassador from the prior meeting sends a written request and is approved by both USHBC and NABC Executive Committees, they may return for one follow-up meeting funded by the USHBC and NABC.

Following the meeting, the USHBC staff requests that the Ambassador complete a questionnaire regarding their experiences and impressions of the program and any interest in becoming more involved in the USHBC. The Ambassador will also be placed on the USHBC mailing list to receive future program updates, meeting announcements and industry information. Industry Relations Committee members will follow up with the Ambassador periodically to keep them aware of Council activities and encourage their continued attendance at future meetings.

As our industry continues to see increased supply it is imperative to create demand in both domestic and export markets. Our Council has set forth on a mission to get more industry members involved so we encourage you to all get involved by attending our Spring or Fall meetings; to network with industry leaders, build friendships and make a difference in your own future. You can make a difference by keeping your contact information up-to-date, as well as reading our Blueberry email updates and signing up for the industry alerts to protect your livelihood. Through the Ambassador Program we are creating the next generation of leaders respected by the USDA, so please nominate a daughter, a son or employee for an ambassadorship to attend a national meeting.

Fueling the Passion for Blueberries

The USHBC continues to fuel consumers' love and hunger for blueberries, and is a driving force behind increases in blueberry consumption in the U.S. Together, all the Council's promotion programs create an ecosystem of positive blueberry messages that surround and influence consumers day in and day out. These programs grow demand by persuading consumers that adding blueberries to their daily routine is a simple, flavorful, and healthful way to help them look and feel their best.

Over time, USHBC promotions have contributed to:

- 599% increase in per capita blueberry consumption in the U.S. more than any other fruit or veggie measured (USDA ERS)
- Consumers citing blueberries as their #1 preferred berry (USHBC U&A 2013)
- 84% of Americans citing awareness of blueberry health benefits (USHBC U&A 2013)
- Blueberries being the only top fruit expecting increased consumption in 2017 (USHBC Opportunity Assessment 2017)

In 2016, the Council had incredible success reaching its consumer target audience (women 25-44) as well as the media outlets, chefs, health professionals and social media personalities influencing their food choices. The Council worked toward getting more blueberries onto chain restaurant and K-12 school menus by providing personalized education and concepts for dozens of decision makers responsible for feeding millions.



Blueberries are winning hearts and carts.



This ecosystem of blueberry promotion illustrates the all-encompassing effect the Council's programs have on consumers.

Continuous progress is also evident in the fact that the heaviest users of blueberries today match up with the Council's consumer target of the past five years (women 25-44). In 2017-2018, the Council will expand that consumer target to include men and women of all ages whose lifestyles and attitudes make them most likely to grow demand in the next five years.

Non-Stop Consumer Marketing Machine

Linking with Hollywood

Consumers today interact with celebrities daily via Facebook, Twitter, Instagram and Pinterest, observing their food and lifestyle choices and modeling their behavior. In 2016, the USHBC continued its four-year partnership with celebrity spokesperson, Alison Sweeney, with a goal to keep blueberries in the spotlight for women and moms.

In four years, the Council's celebrity partnership with Sweeney – actress, author and former host of NBC's The Biggest Loser – led to increased publicity and appeal for blueberries to the tune of over half a billion sets of eyes, through media placements in outlets like Dr. Oz's The Good Life, The Ellen DeGeneres Show, Shape and Life & Style. The partnership also led to positive interactions with over 1.5 million consumers on social media. Given that consumers trust media placements over traditional advertising, these blueberry features reached the Council's target audience in a more relatable, persuasive way.



Celebrity spokesperson Alison Sweeney contributed to a healthy living article in Dr. Oz's magazine, which touted the health benefits of blueberries.



Alison appeared in a full-page article on how to stay fit with blueberries in the widely-read Life & Style magazine.

Activating Food Lovers on the Web

Nowadays most, if not all, consumers use the web to gather information to help make purchase decisions. From searching Google to building Pinterest boards, scanning through Facebook and more ... millions of consumers rely on a number of tools on a daily basis – the same tools the USHBC employs for driving blueberry demand 365 days a year.

Over the years, the USHBC has invested in building its presence on social media and on the web, which has

led millions to its social media pages and website, engaging potential purchasers with blueberry recipes, nutrition facts, cooking tips and more.

In 2016, the Council asked its online visitors for feedback, and learned that LittleBlueDynamos.com was in great shape to appeal to and influence a large subset of the Council's target audience – women and moms, ages 25-44. What's more, we learned that 3 in 4 online visitors who are subscribed to receive the Council's blueberry-related email updates say that the recipe ideas and tips included have prompted them to use more blueberries, showing we've plotted a strong path to purchase.



Blueberry email subscribers confirmed the Council's emails influence their cooking decisions, and spur them to share blueberryrelated ideas from the emails with friends and family. Among other promotional channels, email marketing contributes to a word of mouth ripple effect that spreads demand for blueberries near and far.



The USHBC's website continues to entice recipe-hungry consumers, no matter the demographic, with on-trend imagery, recipes and tips that motivate them to purchase more blueberries.



Social media is a sweet spot for blueberries, and 2016 proved to be no different. Record numbers of existing and new blueberry fans tuned into USHBC posts and platforms to learn new ways to enjoy blueberries every day.



The USHBC inspires consumers with delicious ways to incorporate blueberries into any dish! Blueberry Grilled Cheese, Blueberry Baked Donuts and a Blueberry Chai Cream Cocktail are among 30+ new recipes featured on the USHBC website and social media platforms – and they're free for industry members to use!

Seasonal Campaigns

Our Little Changes

With every new year comes new resolutions, many of which focus on improving one's health. In 2016, the USHBC built upon this annual shift in consumers' mindset and positioned blueberry consumption as a little change one can make for a healthier lifestyle. Our campaign also addressed typical pitfalls of a resolution. The Council challenged Americans to team up with friends, family and loved ones to make little changes all year long. By teaming up with others and setting small, attainable goals for healthy living, we increase our chances for success. That means there'd be greater potential for encouraging more blueberry purchases aligned with wellness resolutions, further into the year.

Using various promotional channels, the Council achieved placements with trusted media outlets that consumers follow for lifestyle inspiration, and created a ripple effect of positive exposure for blueberries through 300,000+ consumer interactions on social media.



The Council created 12 months' worth of social media-friendly visuals highlighting health and fitness tips involving blueberries. These tips were seen by 36,000+ website visitors and thousands of consumers on social media – the channels consumers use most when researching product benefits.

Bite Size Summer

Every year, summer poses both an opportunity and challenge: though supply is abundant from May to September, shoppers most often reach for blueberries in July. To change this shopping habit – and to encourage season-long demand – the USHBC created its Bite Size Summer campaign, tapping into consumers' summertime stresses and offering blueberries as an easy, daily solution.

Throughout the summer, the Council reached and convinced thousands of working parents – whose kids were out of school and in need of easy meal and entertainment ideas – that they could lean on blueberries for help. These parents signed up to receive recipe and activity ideas inspired by blueberries. Because of the



Today's consumers are more likely to buy a product after seeing it featured in a video. Pictured here is the beginning of the Council's "how-to" recipe video featuring beautiful blueberry muffins.

Council's pitching efforts, they read about blueberries as part of a positive summer lifestyle in trusted media outlets including Shape, Life & Style and SheKnows. They also viewed our blueberry recipe videos over 930,000 times on social media. Most importantly, their interactions with Bite Size Summer contributed to a surge in sales during Q2 and Q3 2016, and an overall 11.4% lift in fresh blueberry sales compared to 2015.



The Council created 100 recipe and activity ideas – one for each day of summer – which were shared with consumers as social media-friendly visuals every two weeks. New recipes like Blueberry Baked Donuts were created to drive purchases – they were kid-friendly, activity-oriented and on-trend.

Celebrating a Star Fruit

Summer 2015-2016 encapsulated a year-long celebration of the blueberry's 100th anniversary. Efforts that led to the cultivation of the multi-billion-dollar industry gave us reason to celebrate and a platform to connect with a large percentage of the blueberry audience who genuinely care about their food origins. Highlights included:

• August feature on the Science Channel's How It's Made, with a blueberry farm as the backdrop for an insider's look into how fresh and frozen blueberries are 387,000+ viewers nationally and inside look into the process. 1.13 million+ viewers online, with a rerun potential that's endless. It

also aired in 45 languages and 222 countries, making it a big-impact win for the global industry the Council supports.

- Radio Media Tour that placed 17 radio interviews with growers from top blueberryproducing regions on air, resulting in a total listenership upwards of 11 million.
- "100 Little Things to Celebrate the Centennial" packages mailed to TV stations in top blueberryproducing markets led to broadcast coverage in Washington, Pennsylvania and Michigan, reaching 408,000+ viewers.



The USHBC worked with the How It's Made camera crew to capture harvested. The feature reached the blueberry's journey from farm to store, offering consumers an



TV coverage resulting from the media mailers coincided with National Blueberry Month as well as a peak production months.

Goodness Frozen

With an increasing number of frozen blueberries in cold storage, the USHBC set its sights on the first ever campaign dedicated to promoting frozen blueberries. Goodness Frozen ran in September and October and showed how blueberries' goodness – in terms of health benefits, flavor and convenience – can contribute to life's goodness. At the center of the campaign were four videos to create a connection between frozen blueberries and a positive family lifestyle.

The campaign reached millions of health-conscious consumers with these online videos and through partnerships with health influencers, including Alison Sweeney, registered dietitians and parenting bloggers. In total, there were 2.5 million video views, 66 million people reached through media placements and, most importantly, a 17% increase in movement of frozen blueberries out of cold storage in Q4 2016 over Q4 2015.



Videos showcased how blueberries fit into the everyday lives of families, helping them see frozen blueberries in a positive light. Over 2.5 million consumers viewed the ads, making these the Council's most successful videos of all time.

Sipping Through the Season

During the holidays, countless companies and consumers focus on how to build the perfect meal, leaving room for the USHBC to cut through the holiday marketing clutter and gain attention about a lesser talked about meal part – drinks. From November to December, the Council served up new drink recipes to catch the attention of millennial shoppers who seek interesting, higher quality drink ideas that are simple to make. This strategy caught consumers' attention and resulted in half a million fan engagements on social media (an impressive 185% increase over the 2015 holiday campaign) and reached over 1.3 billion consumers through media placements in outlets like The Daily Meal and Forbes.



Sip Through the Season with a Blueberry Honeybee Cocktail!



Deck the halls, put out the appetizers, and cheers the night away because this weekend is Christmas and I am so excited for all the fun that is to come! I'm headed back down to New Jersey this weekend to spend the holiday with my family. We don't have any huge gatherings but my mom does host an annual Christmas Eve party with some of our closest friends. My favorite part about hosting a holiday party is coming up with a cocktail recipe. This year I teamed up with the US Hishbush Bluebery Council to

recipe. This year Teaniec up with the os righted bitted by Council to come up with an easy and delicious holiday cocktail using blueberries! I love

Media placements and blogger partnerships reached 1,000 times more consumers compared to the 2015 program by promoting blueberries on the websites consumers use for finding inspiration and recipes.



The Council's newly developed cocktail and mocktail recipes showcased simple ingredients and were created with the last-minute shopper in mind. The campaign's website landing page also included an interactive survey to help consumers find their perfect drink.



Health Professional Programs

Riding High on the Health Craze

With America's fixation on healthy living showing no sign of letting up, the USHBC continues to promote science-based evidence of blueberry health benefits to consumers and health professionals, who consumers look to for guidance on what to eat in an increasingly confusing nutrition landscape.



Throughout 2016, the Council engaged Through the USHBC's efforts, 84% of Americans state thousands of dietitians and health awareness of the specific health benefits and 57% say they have professionals and placed more than 112 seen blueberry health stories in the news.

Daily Mail

Why blueberries really ARE the best food for your health: From preventing wrinkles to warding off Alzheimer's, we reveal their top 10 benefits

Recent study pottlem top of the list when it comes to action ident activity
 Chamicals industries also shown to reduce harmful challestand levels, preve
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We have disease and Aldremony, Sharberries have been halled in numerical attickes.

A reserve study placed them top of the betwhen it actives to activation activity programming to 40 other fresh finals and vegetables.



WebMD

Berries: Big Health Benefits in Small Packages

April 4, 2016 - You already time beniet are good for you. But researchers are finding none and more reasons to eat these nutlificus posethouses. Hency's one of the latest paicy details: literres may lower the risk of enstitie syntaxism, Other receipt studies show they may fing a potential role in the first assess Albern rel studies and hence with section to man.

"Berries do warrant the hype that they get," says Berhara Shukiti Haie, IP-0, a USDA staff scientist with the Human Natrition Research Genter on Approach Tuffs University, "And where see are now in brons of research is large and businest actived of where we were To years ago."

The finits -- no matter what type -- are linked with lower risks of concer, teart desires and information, Shalidt Hale says.

In 2016, the USHBC placed over 112 health-related media stories, including top-tier placements in WebMD, VICE, Prevention, Daily Mail and more. news articles and TV segments to communicate the research-backed health benefits of blueberries to millions more. Working directly in-stores, the Council partnered with RDs to promote fresh and frozen blueberries in over 30 supermarkets, leading to thousands of consumer interactions at the point of purchase.

In October, the Council spoke with hundreds of health professionals at the Food and Nutrition Conference and Expo (FNCE) and shared some of this research.

Together these meaningful connections

with health professionals have contributed to an overall lift in awareness of the blueberry's health halo, with 84% of consumers noting specific health benefits of blueberries and 57% citing blueberry health studies in the news. That means more consumers are aware of the health of blueberries and more likely to buy them.





Supermarket events in 30 stores across the U.S. showed thousands of consumers unique ways to use blueberries and piqued consumers' interest in blueberries right at the point of purchase.

Foodservice Programs

Giving Menus a Blueberry Boost

The USHBC pushes more blueberries onto chain restaurant menus by coming at it from two directions. Consumer promotions drive demand that prompts chain restaurants to use more blueberries, while educational programs for foodservice give chefs the intel they need to use blueberries in more dishes. The Council's efforts have helped boost blueberries' presence on menus nationwide, with blueberry mentions on chain restaurant menus having doubled 2007-13 (Technomic).





Chef immersion program at The Culinary Institute of America. Eight in 10 operators were "more motivated" to add blueberries to menus post-program.

In recent years, the Council has interacted with, educated and partnered with decision makers collectively responsible for tens of thousands of restaurant operations. These include Dairy Queen, Wendy's, Whole Foods, Atlantis, CHOPT, Red Lobster, Huddle House, Robeks, Tropical Smoothie Café, University of Colorado Boulder, Sizzler and University



of Missouri. Perhaps you got the chance to sample a Blueberry Fruitea Chiller from Wendy's or saw blueberries on the salad bar last summer at Sizzler!

Media coverage and digital marketing have encouraged further inclusion of blueberries on menus, with foodservice media placements reaching 8.1 million sets of eyes in the foodservice industry and ads reaching 130,000 foodservice professionals in 2016.

In 2016, 33 foodservice media placements reaching 8.1 million readers supported the USHBC's goal of reaching more foodservice decision makers with influential selling points in the channels they look to for industry trends and inspiration.

Energizing School Lunch

School lunch programs have been transformed in recent years, with an increased emphasis on tasty, nutritious options, making blueberries an ideal ingredient for school foodservice operators.

The USHBC targets communications to school foodservice pros, highlighting blueberries as an ideal ingredient and educating them about the availability of frozen blueberries through USDA at a low cost. Among the selling points, blueberries' kid-appeal, health halo and usability across different meal parts have risen to the top and proven effective for driving demand.



93% of school foodservice chefs who attended the USHBC event were converted to blueberry advocates.

In 2016, the Council partnered with the

School Nutrition Association to host a webinar educating 300+ school foodservice pros, resulting in a 94% increase in traffic to the Council's school foodservice webpages. After attending the webinar, 92.4% of school foodservice survey respondents said they're more likely to serve blueberries to students.

The Council also took 16 school foodservice chefs from the largest U.S. school districts in the country to The Culinary Institute of America in Napa for a multi-day boot camp. These chefs, who collectively have the potential to reach one million students per day, learned how to utilize blueberries and their various forms in a variety of dishes. Post-boot camp, 93% of participants converted to blueberry advocates.

In 2016, the USDA announced the largest purchase of frozen highbush blueberries ever made for schools. Getting more blueberries on school menus means more volume sold, plus helping raise the next generation of blueberry lovers.



Media and digital communications garnered thousands of views of the blueberry foodservice website.

Harnessing Kid Power

When it comes to grocery shopping, kids have immense influence on what goes into their families' carts, and they represent the next generation of blueberry consumers.

In 2016, the USHBC partnered with Kaleidoscope Youth Marketing to harness kid power by delivering blueberry mini-magazines, recipe cards and activity sheets to 150,000 American households by way of 600 schools. The program was a huge success, with weekly blueberry purchase intent among participating families up 18% since 2015, and 41% of nonusers having converted to future blueberry purchasers.



Through the Council's school/family marketing programs in 2016, 600 schools and 150,000 families learned that adding blueberries to meals is a little change with big rewards.

Fueling Your Promotions

As an industry, we experienced a number of promotional successes over the past year. In addition to implementing programs that benefited the entire blueberry industry, the USHBC continued creating promotional materials to support members in their own customer outreach. Contact the office to order recipe cards, shopping lists, posters, magnets and more.

A library of blueberry recipes, nutrition facts, photos, and videos can be found online at LittleBlueDynamos.com – link to them from your own websites!

Also, feel free to re-post blueberry inspiration shared via the USHBC social networks: facebook.com/littlebluedynamos twitter.com/blueberry411 youtube.com/littlebluedynamos pinterest.com/blueberrylife instagram.com/littlebluedynamos



Contact the USHBC to discuss marketing materials for your blueberry promotions.

The Little Blue Dynamos® seal reminds shoppers of all the benefits blueberries have to offer and nudges them to toss more berries in the basket. To tap into the marketing power of Little Blue Dynamos, visit RidetheBlueWave.com or contact the USHBC office for a copy of the usage guide and participant seal.



Visit RidetheBlueWave.com and subscribe to receive monthly research and promotion alerts, and information on how you can tap into the Council's national campaigns that spur these amazing results all year long.

USHBC Food Tech



Food Technology North America/International 2016-2017 Tom Payne

It was almost 29 years ago that I first attended a North American Blueberry Council (NABC) meeting. My job was to explain where blueberries could fit into the food industry. At that time, we were concerned with frozen, fillings and smaller emphasis on new ingredients like juice concentrate and dried blueberries.

The Marketplace: North America

In 2014, the US Census reported that per capita fruit consumption in the USA was 250 lbs. A good portion of this consists of grocery and retail food products churned out by the \$470 billion food industry (US Census-2014). A typical grocery store featured 30,000 individual items. Consumers demand variety. North American food processors (USA/Canada) big, medium and small launched more than 47,000 new products in 2016 – (including packing changes, line extensions) In 2017 more than 3,900 new blueberry items hit the marketplace. Back in 1988, the number was around 2,500.

The Blueberry Connection

Today, around 30% of all blueberries produced in the USA are destined for the food industry (my guesstimate). As stated at my first blueberry meeting – it is critical that we understand and keep up with the continual changes in the food processing industry as current and new users of blueberries.

Categories



Source: Mintel Global New Products Database

Charts show new products with blueberry in 1997 compared to 2016. Note the new categories such as pet foods, chocolates and healthcare.

1997 – research indicated that blueberries were utilized in around 450 products and mainly in frozen foods, bakery items and a slew of specialty products in the health food area.

2016 - Today blueberries are used in more than 1000 products – many which categories did not exist in 1997.

A key to these markets has been the advance of blueberry "ingredient solutions" such as low moisture, liquid and specialty ingredients that fit into the food processes, such as extrusion, enrobing, blending and all sorts of high tech areas.

Source: Mintel Global New Products Database

Growth:



Source: Mintel Global New Products Database

Source: Mintel Global New Products Database

USHBC subscribes to a research service called Mintel which collects new product detail from grocery shelves around the world.

Blueberry new product use has risen from 300 in 2000 to more than 1000 in 2012. Today the number of new products has topped more than 1,000 per year including national brands and exciting new high volume products such as breakfast cereals, yogurt inclusions and confectionery. Demand determinants include: steady pricing and availability, ingredient appropriateness and most importantly – the overall health halo. Food processors want to add consumer appeal and value—blueberries in the product and the box do the job.

Food Tech 2016-2017 Developments

- Health Halo
- Clean Label
- In-the-field
- Non-conventional
- Optimization
- School Processing
- Neighbor Markets

The Health Halo and Food Processors

Food manufacturers spend millions of dollars and years developing new products. Tens of millions are spent on launching and marketing and merchandising. Companies around the nation and world are looking for any advantage to add value to their product and provide competitive advantages over competition. Terms such as "superfruits" are now a category, and in the past ten years have been mentioned thousands of times on product packages. Food processors understand the benefits and value of the blueberry "health halo."

Other mega factors:

- Antioxidants Food processors are developing products containing multiple ingredients associated with antioxidants and are using the "superfruit" terminology.
- Beauty from within Manufacturers utilize ingredients which are associated with skin care and beauty for internal consumption. This includes collagen, lutein and now blueberries.
- Ancient grains Cereal and baking companies integrate mixtures of ingredients with historical background including flaxseed, chia, spelt, quinoa and now blueberries (in low moisture formats.)
- Natural, not artificial.

Food Technology and Export



Here is an example of a "super-fruit" bar. Often uses a collection of ingredients – but blueberries take top billing on the box.



Example of combining beauty associated ingredients and carefully worded product descriptions.



Example of ancient grain with visual association with blueberries.



Example of product utilizing blueberry ingredient solution to deliver flavor, color and real fruit identity. (see Clean Label section)

USHBC publishes a monthly new product report that shows blueberry use, trends and novel usage ideas

The "Clean Label"

Three of the leading food manufacturing multinational conglomerates proclaimed that they would remove artificial flavors and colors from food products. This is a lofty proclamation to clean up the label, and companies are fulfilling their promises with the inclusion of functional natural ingredients. Blueberry ingredient solutions fit the bill -- dried blueberries, powders, flakes, juices purees and concentrates and all sorts of other further-processed products. These natural ingredient solutions can be added to cereals, snacks, bars – replacing the artificial with natural. Blueberry ingredient solutions add flavor, texture and eye-appeal – especially to the ingredient statement where they eliminate dozens of lines of six syllable ingredient and additives. What does this mean to a blueberry producer—although the usage amounts vary per unit – remember that it takes 3.5 to 7 lbs. of fresh and frozen blueberries to produce some of these new ingredients. These superheroes are gobbling up a lot of blueberry volume in the USA and export markets!

USHBC educates the food industry on the blueberry ingredient solutions and ingredient functionality. We have:

- Developed and published new blueberry technical brochure with new content and ingredient solution emphasis. More than 1/3 of ingredients are brand new.
- Initiated food tech database that continually documents new technical and scientific information on blueberry ingredients and new product uses.

Food Technology and Export



Blueberry Health Research - 2017

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USHBC Food Tech continually updates databases on health and food technology

Happy Birthday Blueberries

It all began with Elizabeth C. White, a New Jersey farmer, and USDA scientiat Dr. Finderick V. Coville, They developed highbush blueberries from the most promising native bushes



sing native bushe in New Jersey's Pinelands, propagating the best of the best, in 1916 White brought the first

commercial

delivery of blueberries to market.

The world loves highlights blanberties! Today more than 700 million pounds of highbush blueberries are produced annually in North America. Production flourishes in 33 states, two provinces of Canada and Mexico, and around the world.

Our blueberry growers thank you for the support!

 Highbush blueberries comprise 86% of all blueberries grown in the United States and 70% of North American blueberry production.
 Fresh blueberries are a superstar of the produce

section and available throughout the year. • Highbush blueberries are produced in a range of formats – fresh, frozen, puree, concentrate, dehydrated and more.

 Ingredient use of highbush blueberries continues with hundreds of new products introduced each year. Besides traditional items, new categories are growing, such as pet foods and natural committee.

 Scientific research continues to document health benefits. Visit our online bluebeny research database: www.blueberrytech.org
 Highbush blueberries are an excellent choice.

Consistent supply + consumer demand = opportunities

At SIAL Parts, See us at Booth # 4MD85





by Jeannette Fernary

ppealingly plump cultivated blueberries have become almost synonymous with good health, thanks to all the good news about antioxidants and health benefits. Because consumers identify blueberries as irrefutably beneficial, they seek them out in blueberry-containing snacks as well as ingredients in themselves. So powerful is the blueberries-are-good-for-you message that the simple fact that they are included in the ingredient mix is used to certify the healthy attributes of a product. Snacks, confections and foods of all kinds include the ineluctable lure of the blueberry.

From babies to baby-boomer concerns, the demographics of health is inspiring blueberry-laced snacks and treats. The addition of blueberries can make even chocolate more holier than thou: in chocolate- covered blueberries, blueberry-chocolate bars and treats. Blueberries provide an acidic note that adds the perfect accent to rich treats, chocolate and otherwise. The blueberry image is used to imbue products with a virtuous and planet-friendly aura.

Product developers are using the blueberry goodness caché to promote snacks of all types, from salty-sweet and baked, fried, to trail mixes, bars and crackers. In fact, blueberries are used to enhance indulgent treats as a way to grant permission to the reluctant; almost any snack can be exonerated via blueberries! Even candy can be promoted as permissible if blueberries are involved. There are already blueberries in a realm of products that make the claim for antioxidants.

Blueberries are nutritionally dense, contain 14 g. carbohydrate/100g., low in calories and virtually fat-free; they contain no cholesterol, are a source of fiber and contain vitamins, minerals and antioxidants. Consumers view blueberries as valueadded, wholesome, natural ingredients. Consumer blueberry research conducted in four areas of the USA, found a willingness to pay more for products containing real blueberries. In keyperson interviews 88.8% of consumers are willing to pay 50 cents or more for products with real blueberries. Focus group respondents would pay 15 to 25% more for products containing real blueberries.

Color and Sweetness

As the profusion of blueberries products shows, harnessing the

USHBC Food Tech continually published advertisements and articles to reach food processors with information on health, uses and new technologies.



Food Technology and Export

In the Field Activity

Although we are in an age of social networking – face to face interaction with the food industry is still important. During 2016-17 USHBC went in the field to food processing hubs around the country and met with sellers, product developers and end users. This year the focus is on presenting the Blueberry Real Seal to the companies and more importantly gaining buy in from sellers of blueberries.



USHBC attends gatherings of Food Technologists at regional meetings and seminars.



Here is what real food technologists look like at a Institute of Food Technologists (IFT) event.

Non-conventional Markets

- Pet foods
- Natural Cosmetics

While we fight for the stomach space of the consumer – new developments for pets and non-food applications are booming



Global Pet Expo is the "World's Fair" of pet products where we meet the industry and discuss blueberry products.



New pet food personal care items such as blueberry shampoos were introduced at this year's Global Pet Expo.

Food Technology and Export

Pet Foods - Ten years ago you would have laughed at the notion of blueberry pet foods, natural cosmetics and health care and non-food uses. When we started visiting the Global Pet Expo in 2005 – we were amazed to see even a few blueberry bird feeds and giant bags of kibble with a hint of blueberry. Today – blueberries are everywhere. Ingredients such as blueberry fiber which is taken from the pomace in the puree and juice process were the vanguard of the blueberry pet food movement. Now we are seeing fresh pet foods with frozen blueberries, freeze dried and powders. Whatever is good for the pet owner is good for the pet and with the "humanization" of pets in the American family – this category will continue to grow for decades to come.



New blueberry pet food product development continues and now the trend has spread to foreign markets where the "Made in USA" label appeals to doting pet owners.



The use of blueberries in cosmetics and personal care products began in Asia, spread to Europe and now is developing in North America. "Cosmaceuticals" (natural cosmetics) are transitioning to beauty from within products which are likened to edible cosmetics.



Pet food marketers utilize blueberry identification and clever humanitarian campaigns to appeal to the pet owners.



This rawhide treat includes blueberries inside and out and contains blueberry identity on pack as well as pet health information.



This product features blueberries with the ancient grain – flaxseed.

Natural Cosmetics

It is amazing that in many parts of the world such as Asia, Middle East and even South America – blueberries are associated with beauty, skin care and women's health. The blueberry cosmetic or cosmeceutical craze began in South Korea with innovative firms with names like "Skin Food" began marketing face creams, beauty masks and lotions with blueberry. Most used ingredients such as blueberry extracts and tinctures, others utilized blueberry fiber, juice and even seeds as facial scrubs. While some can argue that this uses minimal amounts of blueberry – the exposure that these products give to blueberries is tremendous. The blueberry cosmeceutical trend is spreading all over Southeast Asia, Russia, Europe and the Middle East. This first stage of association with blueberries and beauty products has led to blueberry use in beauty-from within food products which are a craze in Asia and in the drawing rooms of food companies in North America looking to capitalize on "beauty-from within" and beauty in advance. The later means consumption of combinations of foods such as collagen, lutein and others.

Marketed worldwide and contains blueberry essence and extract.

NIVEA

resh verfrui



This Chinese face mask utilizes a blueberry extract and combines beauty and eye care association.

This Australian product includes real blueberry juice.



The Blueberry Real Seal is off and running and we are receiving positive reactions and sign ups – especially in export markets. We have two versions: Real Blueberries and Real Blueberries inside which are designed to stand out on the supermarket shelf.



Little Blue Dynamo Award for Innovation is presented to Trish Adkins of Happy Baby – an innovative producer of natural baby foods which contain blueberry ingredient solutions. The annual award recognizes innovative, optimal and dynamic blueberry uses. We connect with outstanding companies with the "blueberry spirit!"

Optimization of blueberry use in current products

Over the past 30 years we have seen an increasing number of new products identified as "blueberry." This can be a product like a 100% blueberry juice, and more commonly a product that contains blueberry as the primary flavor such as jams and jellies, yogurts and cereals with dried blueberries. We have analyzed blueberry products on the marketplace and estimate that about 30% are optimal – that is use the most possible blueberry. Another 30% are adequate. This means that blueberries are the number one fruit and no other fruit or artificial blueberry are used. The remaining products require further analysis or do not qualify. We still see artificial blueberries with a lot of blueberry image on the package! This year, USHBC has made great strides to encourage companies to use the optimal levels of blueberries. This includes direct one-on-one meetings with companies and the implementation of the Blueberry Real Seal. The concept is simple: we have produced a very appealing service mark which states real blueberries and real blueberries inside. This mark is available to companies who qualify under technical criteria:

- Blueberries are primary fruit
- No artificial blueberries
- Blueberries are in the first top half of the ingredient statement.

With ingredients such as dried, powders, etc., there are exceptions to the above rules.

Already we have identified dozens of products that immediately qualify for the Real Seal and we are in contact. We also have identified companies that we believe can be courted into the optimal category. On the minimal use categories – we also engage to discuss face to face and hope to make positive changes. Our goal is 50 sign ups this year and we are receiving very positive reception from companies and blueberry sellers are also getting behind the service mark.

School Food Processing

USDA school lunch buys are an important outlet for US blueberries. With frozen and dried entering the system, it is critical that the product going to the school systems gets utilized and that the states and USDA sees the value of continuation. Much of the commodities used in the districts are utilized through what is called commodity processing.

- USDA purchases commodities which then are directed to states.
- States qualify commodity processors who are companies who can produce finished products using commodity foods such as flour, butter, cheese, and blueberries
- Commodity processors work deals with major school districts who "divert" ingredients from direct school delivery. Product goes for example to a bakery who produces muffins, a snack food company who makes fruit pies, etc.
- The School district pays the commodity processor for the finished products processing cost with the USDA food ingredients deducted from the finished cost.

Each year, we attend the American Commodity Distribution Association (ACDA) and meet the processors, districts and USDA officials to encourage use of USDA purchased blueberries in this channel. It is important that the USDA sees activity in this category.



Companies proudly display blueberry products at Society for Nutrition Education meeting where USHBC Food Tech meets the companies who serve the school districts.



School foodservice director from Florida shows off fresh blueberry action in local schools while meeting USHBC food tech rep at the ACDA conference 2017.



Each year USHBC Food Tech attends the Commodity Distribution conference and comes away with important information and contacts for the industry to optimize use in USDA food programs.

Working our neighbor markets

- Mexico
- Brazil
- Caribbean
- Central America

We have always been told that "Hispanics" and natives of Latin America and Mexico – do not appreciate blueberries. In fact, back in 1988 we could not even gain a consensus of what to call blueberries. Some called them mora azul (blue blackberry), arandano (same word used for cranberry), azules which is not even a real word





Source: US Customs, 2016 = 290,790 kg (641,000 Source: Mintel Global New Products Database lbs)

and just plain old "blueberry." USHBC has addressed Latin America through food technology program activities in Latin America, the Caribbean and Central America. Much of the food industry in these regions is affiliated or tied to the USA including Kellogg's Mexico, Gamesa-Pepsico and Grupo Bimbo which although Mexican – is the leading bakery in all of the Americas including the USA! USHBC employs a skilled Food Engineer in the region who continually contacts, and links blueberries with the companies in the region. Some of the up and coming countries include Latin American countries – even those who produce blueberries are eager to integrate blueberries into food products. Our food technology transfer activity links these manufacturers with the USA providers of processed blueberries and ingredient solutions.

Mexico – A country with a rising food industry that is pioneering health and beauty products including bars, healthy breads and dairy desserts. In past years, we have worked with USA headquartered and Mexican multinational food processing companies and chain foodservice operations. In 2016 – we exhibited at the Food Tech Summit in Mexico City where we met a whole new stratum of Mexican companies including bakery suppliers, jam manufacturers, beverage and confectionery companies. These companies like their counterparts in the USA are looking for shelf stable ingredient solutions and frozen fruit for fillings, jams and jellies and yogurt preparations.

Brazil – A country of 211 million* and home to a huge regional national and international food industry. Although the country is having economic difficulties at the moment – the food industry remains strong and blueberry ingredient usage is on the rise. The country is obsessed with health and beauty and has a strong beauty from within tradition. We are seeing strong interest by companies in dried, puree and frozen for jams and fillings. We are also helping with the fresh market which continues to purchase in off seasons of Southern Hemisphere suppliers. This year we exhibited at the Food Ingredients South America in Sao Paulo and developed some outstanding leads and contacts that have resulted in US blueberry sales.

Caribbean – The region is tied to South Florida and consists of lots of small islands and massive tourist and cruise ship trade. Islands such as Jamaica, Trinidad and Tobago have substantial food industries and dried fruit traditions such as puddings and fruit cakes and my favorite – Jamaican Bun and cheese with blueberries! We reach the region each year with participation at the Americas Food Show in Miami where the World Trade Center (WTC) of Miami brings in the top companies to meet with USHBC food tech representatives. Check out the statistics – even small countries can move moderate volumes and in these areas – everything is imported!

Food Technology and Export

Central America - Our neighbor countries to the south feature up and coming regional food industries based on dairy and sugar production. These countries are close to the Southern USA and Gulf Coast and are sourcing food ingredients for home and regional re-exports of items such as panetone, chocolates and fruit fillings. Costa Rica is an early adapter and although small – little shipments add up and are important to producers on the Southern tier of the blueberry industry.

2016-17 Developments





Source: Mintel Global New Products Database

Blueberries are gaining popularity in food products throughout Latin America. Items such as dried, and powders are used in health food products from multinationals and local companies alike.



Even in blueberry producing countries like Peru, there is a need to import dried blueberries for food processing.



Major companies like Quaker, Gamesa and Kellogg's are using dried blueberries in the healthy snack category.





Latin Americans love fruit juice and this product from Brazil contains no added sugar.

Mexican- based multinationals develop some creative twists to international products. Yoplait features a drinkable blueberry yogurt with suspended fruit pieces.
Latin American Expositions

USHBC Food Tech exhibits at food industry expositions in Latin America including the Americas Show in Miami, Food Technology Summit in Mexico City and Food Ingredients South America in Brazil. Important links with Latin American companies have been established including beverage, dried fruit and dairy products.



USHBC Food Tech Latin America Representative Katia Miura meets with food processors at the Summit in Mexico City. Visitors included some of the leading Mexican food manufacturing companies including Bimbo, Kellogg's and Gamesa.



Miami is the Capital of the Caribbean Basin and we met companies from throughout the Islands and Central America. Here fellow Brazilians meet up at the USHBC Food Tech Booth.



The South American food industry is growing rapidly and the Food Ingredients SA exhibition was an excellent way to meet research and developers from the largest companies in the region. Blueberry ingredient solutions from the USA were a big hit. (even from manufacturers in blueberry production countries)

Marketplace: Export Markets

- China
- South Korea
- Taiwan
- Southeast Asia
- India/Middle East
- Europe
- Australia
- Access

USHBC Food Tech works in key export markets around the world to drive processed blueberries into the food processing sectors. We strategically target high probability markets with large populations, rising middle class and dynamic consumer food product markets. Demand determinants in the export market include:

- Blueberry or food as medicine traditions.
- Dynamic food industries with supply chains to import and distribute blueberry and blueberry ingredients.
- Rising economies with consumer buying power and rising middle class.

As with North America, we work to engage companies raising awareness, interest, trial-evaluation and acceptance of blueberries and blueberry ingredients. We go into the markets, participate in key trade shows and expositions, conduct seminars and provide technical assistance. Our objective is to do the foundation work that will turn interest into usage. In 2016-2017, our activities have led to leads which have resulted in first time sales for US blueberry shippers and packers all over the world.

Asia/Greater China: Asia is the prime target for USHBC food tech activities with more than 1/3 of the world's population. NABC and USHBC have been working in some of the Asian markets such as Japan and Taiwan for decades and we approach the region as a whole.

People's Republic of China

With 1.3 billion* population, China is the priority target market for USHBC food tech. We have a skilled food tech professional in country who works day to day with Chinese companies to introduce blueberries. This is a vast country with food industries in wide spread regions, so we have worked through food industry trade expositions such as Food Industry China and SIAL China where 30,000 plus companies visit. In China, dried blueberries have been the star ingredient for the snacking business in the South. In 2016, more than 1.1 million kg of dried blueberries (2.4 million lbs) were shipped to China. It took 8.3 million lbs of frozen blueberries to produce this amount. Now that US blueberries are getting established - our efforts have also included promotion of the Blueberry Real Seal to ward off imitators which are many. We are also making headway with major dairy companies in the

North of China as well as frozen in jam and jelly manufacturing. China still has a 30% duty and even with this - we are confident of major gains





Source: US Customs, 2016 = 1.62 million kg (3.5 million



lbs)

Source: US Customs, 2016 = 1.62 million kg (3.5 million lbs)

Source: Mintel Global New Products Database



Source: Mintel Global New Products Database

in 2017. USHBC Food Tech also conducts activities in Hong Kong and South China including bakery, foodservice and institutional promotions.

Japan

Japan has always been the most important export market for US highbush blueberries. The Japanese food industry has been a loyal customer of US processed blueberries and according to importers – they appreciate the varieties which produce the flavor profiles they require. While much of the Japanese food industry have experienced difficult times since the natural disasters of 2011, the food industry has continued to import North American frozen blueberries. The big star has been the quick rise of dried blueberry shipments which have gone to chocolate

panning. USHBC-Food Tech activities in Japan have included participation at food expositions, seminars and bakery shows.





Source: US Customs, 2016 = 3.749 million kg (8.2 million lbs)



South Korea

This country of 50.6 million* has been the success story of the decade with meteoric rise in shipments of frozen and dried blueberries rising from more than 100,000 kg (220,000 lbs.') (frozen highbush) in 2002 to more than 4.12, million kg (9 million lbs.) in 2016. We have seen a 15.2% rise in shipments from 2013 to 2015. Last year (2016) was an adjustment year for frozen blueberries as shipments slipped around 38%. Shipments of frozen US blueberries have bounced back in the first quarter of 2017 where we have seen a 28% increase for frozen highbush blueberries to South Korea. A weak Korean Won and political chaos was partly to blame for the dip but a real factor was the replacement of US polybag shipments with Chilean blueberries as U.S. blueberries still face a steep duty compared to Chile's zero duty. The good news is that due to the Korea Free Trade Agreement (KORUS), the duty on US product has dropped as of March 14 (anniversary of signing of KORUS) to 4.4%. The duty will be totally eliminated on this same date in 2018. Despite a duty disadvantage – Korean food processors continue to pay a premium for US frozen blueberries. According to end-users, the soft skinned and juicy frozen varieties from North America perform best in jams, jellies and yogurt preparations. Our "secret weapon" in Korea is food technologist Sunyong Lee who continually makes factory and headquarter visits to companies all over Korea. He uses his vast contacts from his career in the food industry to open doors. His enthusiasm and knowledge of blueberries and food processing are responsible for major developments in new products including sauces, beverages and even blueberry Kim Chee (fermented cabbage).





Taiwan

lbs.)

Source: Mintel Global New Products Database The Republic of China (ROC) with only 20

million* people is far more important to the US blueberries than the population size. Taiwan is the center of greater China, meaning that Taiwanese companies like President Enterprises, I-mei and others operate all over China and Southeast Asia. President is the largest food company in China and just about every successful mainland Chinese company has Taiwan connections. Same goes for companies all over Southeast Asia where local Chinese business persons in Philippines, Malaysia, Indonesia all carry ROC passports. NABC began work in Taiwan in 2000 and at the time very little blueberry was shipped. We have used this country as a "laboratory" for trying marketing activities and have promoted fresh to consumers and foodservice driven by "beauty oriented" advertising in women's magazines. Our program has transitioned to processed blueberries and we are conducting food tech activities with a representative in country conducting year round activities and promotions. This includes seminars and factory visits, foodservice promotions and seminars and food industry trade shows. Frozen blueberry shipments are

on the rise and companies are now identifying dried blueberries as "highbush!" The Blueberry Real Seal is now being offered to qualified companies and the US identification and association with food quality is a big value to companies in this country which has been rocked continually with food scandals.



Source: Mintel Global New Products Database



The New Generation. Blueberry Mandy and sister Melody, orchestrate promotions all over Taiwan. They continue the blueberry family legacy of their mother Blueberry Millie! Current shipments are around 2 million pounds per year and rising. The market was formerly fresh and now with USHBC Food-Tech activities, the market is also advancing in frozen and dried.

2016-17 Developments



Master Chef John Hui, from the Lodge at Pebble Beach, (center w/o hat) trains Taiwan chefs on blueberry desserts in series of seminars held in conjunction with the USDA-FAS Agricultural Trade Office in Taipei. Every recipe that John presented is now in use in hotels and restaurants in Taiwan!



Driven by the smoothie craze as well as bubble tea and fresh juice – a number of foodservice and bakery packs of frozen blueberries are now available nationwide. Taiwanese love the USA origin and the term "cultivated" is used on product packs including newly launched dried cultivated blueberries.



Locally produced jams and fillings are opening up new uses in bakery, confectionery and snack industries.

Southeast Asia

- Philippines
- Vietnam
- Indonesia

USHBC Food Tech has made great progress in the food industries in Philippines, Vietnam, Indonesia, Thailand and Malaysia.

The Philippines – a 103 million* population nation with a rising economy and young and energetic workforce and food industry. In 2016-17 we have conducted seminars and meetings with importers and industrial users and have helped companies source frozen and dried blueberries. The Blueberry Real Seal is an essential complement to new users in this market who are eager to identify their products as "US made."



USHBC-Food-Tech exhibited at the 2017 Bakery Fair and these young award-winning bakers from Davao in the South Mindanao were proud to be part of the blueberry trend.



Bakers need formulas and expertise to produce new items such as blueberry muffins, bagels and others.



It's a start – Gardenia the largest commercial bakery in the region has developed a strawberryblueberry bread. With in-country blueberry supplies firming up, and local production of fillings – more will follow!

Vietnam - this 95.2 million* population country is on the move economically and home to a burgeoning food industry with heavy European and Asian (mainly Korean) investment. Our initial activities such as trade visits and expositions have discovered a surprising awareness and delight for all things blueberry. Major dairy companies feature blueberry beauty drinks. Several companies produce jams and jellies. Surprisingly enough for a country with a complex relationship with the USA-the young population loves all things American. For the second time we have participated at the Food and Hotel Vietnam Exposition in Ho Chi Minh City (formerly Saigon). Blueberries were the talk of the show and importers and distributors are working to get blueberries into more new products.



The Vietnamese perceive blueberries as a beauty ingredient and several beauty-from-within products with blueberries are on the market.



The local booth staff were big blueberry fans



Visitors at USHBC booth at Food & Hotel Vietnam exposition. Note that they are all women visiting the blueberry booth.

Indonesia – In 2016-2017, we completed a major USDA-Emerging Market's Program (EMP) assessment of the Indonesian food industry. This was a mammoth effort that stretched across the 14,000 plus islands of the 263 million* population country. Main targets were jam, jelly and preparation companies who not only produce consumer products but also produce the preparations necessary for inclusion in dairy and bakery products. Dried blueberries were also of interest to

Action shots from FI Asia 2016. We started with an assessment and found the right channels and potential. This mega-country shows good potential for frozen and dried blueberries.







Indonesian produced blueberry drinkable yogurt. Flavor preparations are made by local jam manufacturers who use inexpensive sugar to create flavors for dairy.

Indonesians love sweet jams and the toast and jam tradition from Dutch colonial days continues. Several regional jam manufacturers are now producing blueberry jams.



Locally bagged dried blueberry for Ramadan. Indonesians break fasting with dried fruit snacks in the evening.



Indonesia is a juice loving country and now several blueberry containing products are in the markets.

snack companies and re-baggers – especially in the Ramadan times. Upcoming activities will include food tech trade shows and company visits and seminars.

India/Middle East

USHBC Food Tech approached this 1.3 billion* plus population market five years ago and have made steady progress in the food industry.

Raj Kapoor, who has a background in grain sciences and baking, works the market day to day and has been instrumental in helping prime the market for frozen and dried blueberries. Already there are several locally-produced bakery fillings, jams and beverages and now dozens of companies distribute consumer packed dried

blueberries. Activities include regular plant visits, seminars, and food tech



Source: US Customs, 2016 = 84,000 kg (185,000 lbs.) Note: Import statistics are notoriously inaccurate in region.



Source: Mintel Global New Products Database

trade shows. USHBC-Food Tech covers the Middle East from India and our major activity was the Gulfoods 2017 exhibition. This was the fourth Gulfoods for us and we have seen a dramatic upswing of interest in blueberries in the region. In comparison to first few shows where companies asked - "what is a blueberry?", this year visitors mobbed the USHBC booth and asked questions on antioxidants and were especially interested in diabetes research.

* Source for each country's population: http://www. worldometers.info/



Meet Raj – your man in Mumbai! Here he works his magic with visitors at Gulfoods!

2017 Developments



India has a nationwide dried fruit culture and most trade is at dried fruit markets and "Souks" and in bulk. In past year, dozens of new consumer packed dried blueberry products have been introduced all over the different regions. They sell for high price and are often part of gifting. This product will sport the Blueberry Real Seal soon!



Dairy is a major part of the Indian food industry and yogurts are a common food condiment. With blueberry fruit preparations now produced locally – this is driving a whole slew of western-style yogurts to market.



sauces are key to food industry ingredient development in India. In past these were imported pre-made from Europe. Now, Indian companies are purchasing frozen blueberries and producing in country and this has been the key to ingredient use in dairy and baking sectors.



Indians practice foodas-medicine with a tradition of Ayurveda where specific foods are assigned specific virtues. This philosophy has transcended into skin care and beauty from within as well with several blueberry beauty products introduced in 2017.

Europe

While we pay most attention to Asia, USHBC food tech is back with efforts to promote dried and frozen blueberries to the European food industry. Our big activity was the ANUGA world food show in Cologne, Germany and this was a magnet for food processors from all over the region. Dried blueberry was the largest interest and frozen for jam and jelly manufacturers from Scandinavia, Russia, Western and Eastern Europe and North Africa. USHBC-food tech completed a USDA-funded market assessment under the Emerging Markets Program (EMP). The assessment was conducted before, during and after political unrest in the country. We made contact with jam and jelly manufacturers, dried blueberry importers and distributors and traditional Turkish delight confectionery. Already one major producer has launched a nationwide blueberry containing Turkish delight!







Source: Mintel Global New Products Database (GNPD)



Source: US Customs 2016 = 2.6 million kg (5.7 million lbs)



One of the largest Traditional Turkish confectionery manufacturers launched a new line of blueberry "Turkish Delight" (lokum) at a major international food exposition. Even Turkish Delight purists were impressed and this has led other companies to follow.

Australia

The land down under is a paradise for blueberries in food processing. Last year we conducted our first exposition at the Fine Foods Australia in Sydney and at the 2016 version in Melbourne we saw companies who have already developed and launched blueberry containing products. Origin is very important to Australian companies and we will continue to emphasize the USA origin.



Meet the new spirit of Australia – Young, multicultural and blueberry loving. This was our neighbor at Fine Foods Australia exhibition in Melbourne.



Source: Mintel Global New Products Database Beauty from within and topical application products from around the world are selling in Australia, especially skin and hair treatments.



With fresh blueberries vacant in the stores half of the year – processed replacements are important in Australia.



Dried blueberries are popular as snack and also ingredient. Australians are also interested in natural dried and ingredient solutions like powder and flakes.



Australians love fresh pressed juices and even process in stores.



Australia has a high per capita consumption rate for chocolates and chocolate covered blueberries are just starting to emerge. This one claims all natural.

Market Access

USHBC-food tech provides technical support to NABC/APHIS for fresh market access. Current countries being addressed include China, Korea (all USA besides Oregon who already has access), Vietnam, Philippines, Australia, New Zealand and Israel. This includes preparation of industry information for USA and after submission working with USDA-APHIS to get expert answers and responses from various regions of the country.

Statements of Financial Position

December 31, 2016 and 2015

Assets

	<u>2016</u>	<u>2015</u>	
Current Assets:			
Cash	\$7,577,892	\$7,062,802	
Accounts receivable	455,315	363,309	
Promotional materials	29,647	27,724	
Prepaid expenses	18,519	18,092	
Total current assets	8,081,373	7,471,927	
Equipment, net	-	<u>257</u>	
Total assets	\$8,081,373	\$7,472,184	
Liabilities and Net Assets			
Current Liabilities:			
Accounts payable	641,740	\$684,943	
Current portion of health research contract obligations	1,005,923	451,230	
Deferred crop assessments	<u>4,593,807</u>	<u>4,341,608</u>	
Total current liabilities	6,241,470	5,477,781	
Health research contract obligations, net of current portion		<u>582,952</u>	
Total Liabilities	6,241,470	6,060,733	
Unrestricted net assets	<u>1,839,903</u>	<u>1,411,451</u>	
Total Liabilities and Net Assets	\$8,081,373	\$7,472,184	

Statement of Activities

For the Years Ended December 31, 2016 and 2015

	<u>2016</u>	<u>2015</u>
Revenue:		
Domestic crop assessments	\$4,432,109	\$4,598,592
Foreign crop assessments	3,442,318	2,923,045
Grant revenue	226,754	63,055
Gains from contract expirations	122,250	95,089
Other revenue	<u>10,174</u>	<u>10,002</u>
Total revenue	<u>8,233,605</u>	7,689,783
Expenses:		
Market promotion and publicity	5,434,890	4,788,746
Health Research	1,068,574	1,179,587
Industry relations	85,371	73,156
Food safety	93,233	88,401
USHBC program fees	207,833	202,113
General and administrative	<u>915,252</u>	<u>783,583</u>
Total expenses	<u>7,805,153</u>	<u>7,115,586</u>
Change in unrestricted net assets	428,452	574,197
Unrestricted net assets, beginning of year	1,411,451	837,254
Unrestricted net assets, end of year	\$1,839,903	\$1,411,451

USHBC OFFICE STAFF



USHBC OFFICE STAFF

First row – Mandy Ellstrom, Administrative Assistant, Julie Fogarty, Assistant Manager, Mary Nezbeth, Office Manager Second Row – Rick Ruckman, Compliance & Data Coordinator and Mark Villata, Executive Director

The Corporate Social Responsibility Statement of the U.S. Highbush Blueberry Council

Members of the U.S. Highbush Blueberry Council (USHBC) believe in several core values related to the responsible stewardship of the resources with which we are entrusted. In order to fulfill our responsibilities in accordance with these values we will:

- Promote sustainable practices in agriculture, balancing the needs of consumers with the needs of the land and the industry.
- Contribute to an important agricultural economy that must be self-supporting and profitable.
- Recognize the interdependence of our growing, handling and marketing activities with customers, regulators, neighbors, suppliers, employees and others who support and permit our work.
- Enjoy and foster diversity in all its positive forms, from the crops we grow to the membership in our blueberry community.
- Encourage the sharing of information to provide participants in the industry and our consumers the knowledge they need to make good choices about all aspects of their enjoyment of blueberries.
- Embrace the challenge of promoting the goodness of blueberries to all corners of the earth and to be the impetus that contributes to the health and well-being of consumers and creates opportunity for fellow industry members.

The USHBC Code of Ethics

As members of the U.S. Highbush Blueberry Council, we acknowledge our responsibility to our industry, its customers, the Council and our fellow humans to exhibit the highest standards of business conduct. We therefore encourage our industry members to:

- Be committed to adherence to laws, practices and regulations which apply to the areas where we conduct business.
- At a minimum, follow the standards and practices required by law and regulation for growing, harvesting, processing and handling blueberries for the protection and health of our employees and those who eat our great product.
- Encourage that hours worked each day, and days worked each week, shall not exceed legal limitations, that unsafe workplace practices not be tolerated and that employees be trained in safe practices.
- Provide impartial and unprejudiced treatment to employees in all sectors of the industry.
- Conduct all our business practices with honesty, fair dealing and in conformance with high ethical standards and use only legal and ethical means in all business activities following all applicable laws and operating in ways that encourage trust among our members, their customers and other stakeholders.
- Provide the means to help our industry grow in socially appropriate and ecologically responsible ways throughout the entire supply chain.
- Be strongly committed to the strict adherence to all environmental rules, regulations and standards that are imposed by local, state and national government authorities.
- Hold one another to the highest levels of integrity and be a good corporate citizen in every community and locality where we grow. Encourage blueberry growers to become involved in the life of their communities by participating in and sponsoring activities that result in community betterment.
- Collaborate with industry members, researchers and others to benefit the responsible growth of the blueberry industry.
- Be honest and fair in our promotion of blueberries and scrupulously accurate in our representation of the benefits of eating blueberries.
- Support our Council, and the industry at large, by debating, crafting and promoting changes that will create opportunity for involvement in the industry.
- Educate members about good management practices that contribute to further development of the industry's growing, handling, marketing, health, safety, public education and other important disciplines.

USHBC Meeting Schedule and Invitation

USHBC meetings are open to all members of the industry and offer an excellent opportunity to learn more about the Council and the various market promotion and health research activities being conducted by the USHBC. These open meetings also offer the opportunity to contribute by sharing your thoughts with the USHBC.

All members of the blueberry industry are encouraged to attend and participate in USHBC meetings and are asked to also consider future service with the USHBC as an elected member or alternate. Please contact the USHBC office at (916) 983-0111 if you have any questions concerning the USHBC or future meetings, or for more information about USHBC member or alternate positions.

2017 USHBC Fall Meeting

Grand Rapids, Michigan Wednesday, October 11 to Friday, October 13, 2017 Amway Grand Plaza Hotel Toll Free Reservations ~ 800-253-3590 Group Name: North American Blueberry Council

2018 USHBC Spring Meeting

Salt Lake City, Utah Wednesday, February 28 to Friday, March 2, 2018 DoubleTree Suites by Hilton Salt Lake City Downtown Reservations ~ 1-801-359-7800 Group Name: North American Blueberry Council – Spring Meeting 2018

The USHBC has adopted a diversity outreach plan to attempt to achieve a diverse representation on the Council. USHBC programs and meetings are open to all individuals. The USHBC prohibits discrimination in all of its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, genetic information, parental status and marital or family status. The USHBC fully complies with any and all applicable Federal, State and local equal employment opportunity statutes, ordinances and regulations, including but not limited to Title VII of the Civil Rights Act of 1964; the Americans with Disabilities Act of 1990, the Age Discrimination in Employment Act of 1967; and the Equal Pay Act of 1963. Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the USHBC office at (916) 983-0111. To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington DC. 20250-9410 or call 800-795-3272 (voice) or 202 720-6382 (TDD).





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