

2016

ANNUAL REPORT



*A year of extraordinary
accomplishments*



MISSION AND STRATEGIC PRIORITIES 2015 - 2017

MISSION

Increase consumption of fresh mangos in the United States (U.S.) through innovative research and promotional activities, while fostering a thriving industry.

VISION

To bring the world's love of mangos to the U.S.

STRATEGIC PRIORITIES

1. Direct to consumer marketing to increase mango consumption and awareness
2. Increase presence and sell-through of mangos at retail
3. Increase presence and sell-through of mangos at foodservice
4. Generate knowledge through research efforts in support of the vision
5. Enhance industry communication and preparedness to create a unified industry

ABOUT THE NATIONAL MANGO BOARD

The National Mango Board (NMB) is an agricultural research and promotion program authorized by the Commodity Promotion, Research, and Information Act of 1996 (7 U.S.C. 7411-7425), and the Mango Promotion, Research, and Information Order, issued in 2004 (7 CFR 1206). The NMB is an instrumentality of the U.S. Department of Agriculture (USDA) and receives oversight from the Agricultural Marketing Service, Fruit & Vegetable Program, Research and Promotion Programs.

TABLE OF CONTENTS

Letter from the Executive Director	3
Letter from the Chairman	4
2016 Board of Directors & Financials	5
State of the Mango Industry	6
Initiatives & Marketing Program.....	8
Research Program.....	14



LETTER FROM THE EXECUTIVE DIRECTOR

Greetings Mango Industry,

I am pleased to share that the NMB could not have asked for a finer year in 2016! It was a year in which the past, present and future united to celebrate 10 years of NMB success and accomplishments. At the same time, the industry experienced a year of significant growth and the NMB made progress that will influence the future of mango consumption.

As part of NMB's 10 years in the mango industry, past chairpersons and industry stakeholders, which were key in establishing the NMB, were invited to the September board meeting and honored for their unwavering support and strong leadership. Additionally, the NMB highlighted its 10 years of success at the Annual Mango Industry Reception at PMA in October, where it was our pleasure to host approximately 400 guests.

Last year also marked new records for mango volume in the U.S., with the total volume handled surpassing a billion pounds, an increase of over 12.5 percent compared to the previous year, and breaking the record set in 2013 by nearly eight percent. At the same time, demand for fresh-cut mango and ripe-and-ready to eat mangos continue to increase. Fresh-cut mango now makes up 22.5 percent of the total mango dollars per store/week generated at the retail level. This growth is exciting for everyone in the mango industry, but also brings to light areas of opportunity and existing bottlenecks that can be improved. To tackle these challenges, it is necessary for the NMB to continue expanding marketing and research efforts, and work closely with stakeholders at all levels of the industry. For these reasons, the NMB participated in several new events and projects, and included retailers in more activities. New initiatives included the Fairchild Mango Grower Summit, organizing mango industry tours and bringing together the Mango Packaging Task Force. Additionally, with the support of the frozen mango industry, the NMB has submitted a formal request to the USDA to include the frozen category in the NMB programs.

The NMB is proud to be an organization that continues to outperform itself year-after-year as it becomes more effective and more efficient in its marketing, research and outreach efforts. As evidence of this, the NMB's return on investment (ROI) continues to rise and has reached a ratio of 14.2 to 1. This means that for every dollar invested into the NMB, \$14.20 has been generated back to the mango industry. This extraordinary achievement is a result of the support received from the entire industry, the strategy provided by the board members and the implementation by everyone on the NMB team. By working together, we continue to expand mango consumption and drive the industry higher than ever before. I invite you to review the 2016 NMB Annual Report to become familiar with what we have achieved together.

*All the best to you!
Manuel Michel*



"Last year also marked new records for mango volume in the U.S., with the total volume handled surpassing a billion pounds, an increase of over 12.5 percent compared to the previous year, and breaking the record set in 2013 by nearly eight percent."



LETTER FROM THE 2016 CHAIRMAN

Reflecting on 2016, I am pleased to say we made great strides in our vision to “Bring the World’s Love of Mangos to the U.S.” In the process, we gained clarity on issues that keep mangos from being the most consumed fruit in the U.S., as it is in much of the world. The statistics and examples in these pages speak for themselves. The results are a testament to the quality of our talented and dedicated staff, our vendors, and to the mango industry board members who created our vision, mission, and strategic priorities.

Our *Share. Mango. Love.* campaign showed U.S. consumers the rich culture of mangos in Mexico and its many uses as a culinary delight. We also paired the world’s most popular fruit with the world’s most popular sport through our partnerships with US Youth Soccer and National Women’s Soccer League. Our marketing programs and our vision aligned perfectly, resulting in the highest number of yearly marketing impressions to-date. I am proud of our staff for delivering record retail promotion results, and for winning the Produce Marketing Excellence Award.

Nutrition research projects concluding in 2016 suggest mango consumption could combat obesity, slow advancement of breast cancer, improve regularity, and decrease inflammation in the digestive system. Going forward, we will explore the promising area of “bioavailability” of the health-beneficial compounds in mangos. We also invested in postharvest research to solve quality problems such as anthracnosis, pitting, cutting black, and sunken shoulders. Our support of the mango genome project will make tremendous advancements in varietal breeding programs in the future.

I believe the only obstacle to mango becoming one of the most consumed fruits in the U.S. is a consistent excellent eating experience. The U.S. consumer needs to experience premium tasting varieties like Kent and Ataulfo at an optimum stage of ripeness. Consumer testing shows this will drive much higher consumption. Consequently, we must concentrate on flavor, not yield or shelf life. We must eliminate the practice of picking fruit pre-maturely, as well as shipping and storing fruit below optimum temperature to maintain shelf-life when it saps the flavor. Lastly, we need to improve the quality and functionality of our packaging.

We are tackling these concerns. Our ripe-and-ready to eat program has great success with retailers committed to delivering the best flavor to consumers. Our Packaging Task Force has identified challenges retailers have with mangoes, and is developing solutions to decrease product damage, improve ripening, and make the distribution and display of mangos more efficient for the retailer.

If we unify the entire mango industry around the concept that everything we do must be guided by the principle of delivering the best FLAVOR to the final consumer, we will increase consumption dramatically for years to come.

We have an amazing product! Mango is delicious and healthy. It is diverse in its culinary uses, culturally significant, and loved passionately around the globe. It is our vision to share the mango love across the nation.

Sincerely,
Greg Golden

“If we unify the entire mango industry around the concept that everything we do must be guided by the principle of delivering the best FLAVOR to the final consumer, we will increase consumption dramatically for years to come.”



2016 BOARD OF DIRECTORS

- Greg Golden**, Chair, Importer District II
- Jojo Shiba**, Vice Chair, Importer District II
- Jorge Perez**, Secretary, Foreign Producer
- Chris Ciruli**, Treasurer, Importer District III
- Jiovani Guevara**, Marketing Committee Chair, Importer District III
- Oscar Orrantia**, Research Committee Chair, Foreign Producer
- Altamir Martins**, Communications Committee Chair, Foreign Producer
- Danny Pollak**, Ex-Officio, Importer District I
- Enrique Sanchez**, Foreign Producer
- Jacque Swett**, Foreign Producer
- Michael Warren**, Importer District I
- Reynaldo Hilbck**, Foreign Producer
- Sergio Palala**, Importer District III
- Shawn Allen**, Importer District II
- Susan Underwood**, Importer District I
- Patrick Dueire**, First Handler
- Tomás Paulín Quezada**, Foreign Producer
- Veny Marti**, Domestic Producer
- Web Barton**, Domestic Producer

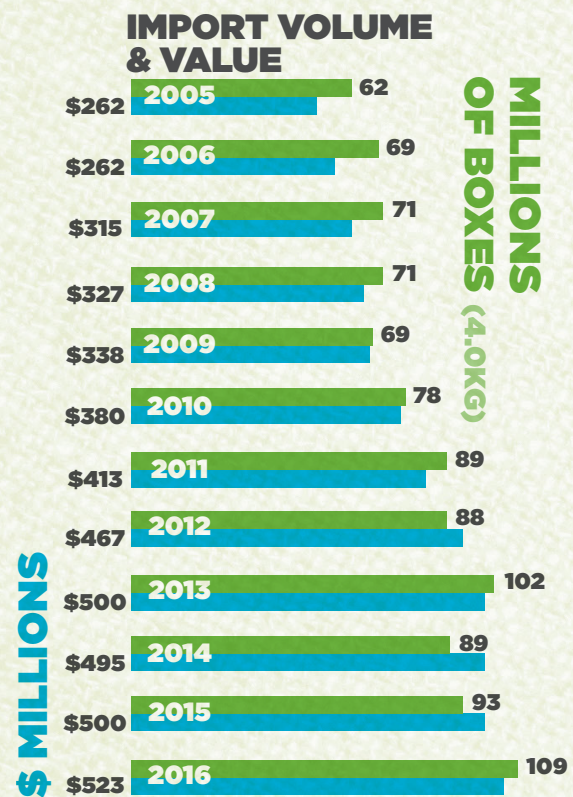
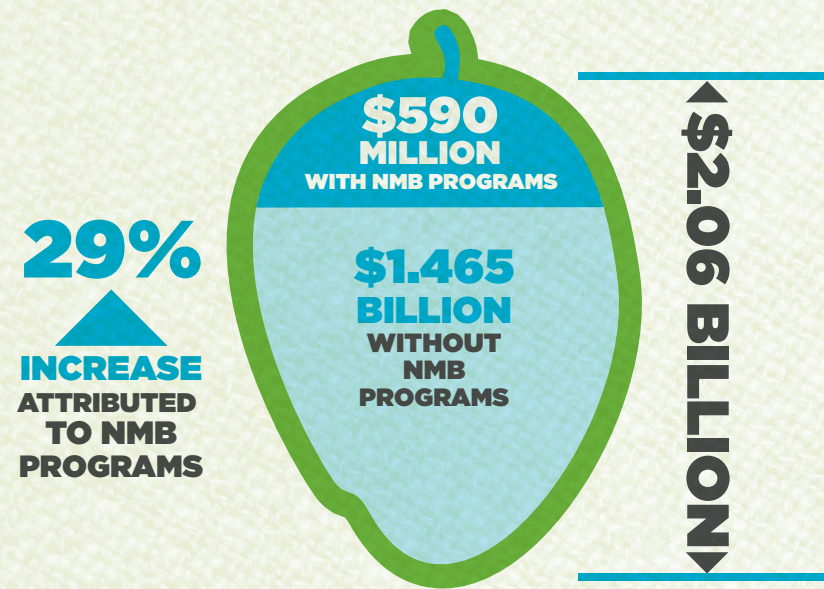
2016 FINANCIALS

BDO USA, LLP, accountants and consultants, audited the NMB financial statements of fiscal year 2016 and issued a report on March 15, 2017. The audit was done in accordance to auditing standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the U.S. BDO USA, LLP did not identify any deficiencies in internal control over financial reporting for 2016.

INCOME	ASSESSMENTS	\$7,374,170	
	INTEREST INCOME	\$60	
	TOTAL REVENUES	\$7,374,230	
EXPENSES	MARKETING	\$3,862,199	TOTAL PROGRAM EXPENSES \$5,869,471
	COMMUNICATIONS	\$644,205	
	RESEARCH	\$1,247,792	
	BOARD MEETINGS	\$115,275	
	OVERHEAD	\$467,476	GENERAL & ADMINISTRATIVE EXPENSES \$716,231
	USDA & U.S. CUSTOMS	\$124,049	
	RENT	\$84,869	
	DEPRECIATION & AMORTIZATION	\$39,837	
	TOTAL EXPENSES	\$6,585,702	
		CHANGE IN UNRESTRICTED NET ASSETS	\$788,533
	(BEGINNING OF YEAR) UNRESTRICTED NET ASSETS	\$3,601,102	
	(END OF YEAR) UNRESTRICTED NET ASSETS	\$4,389,630	

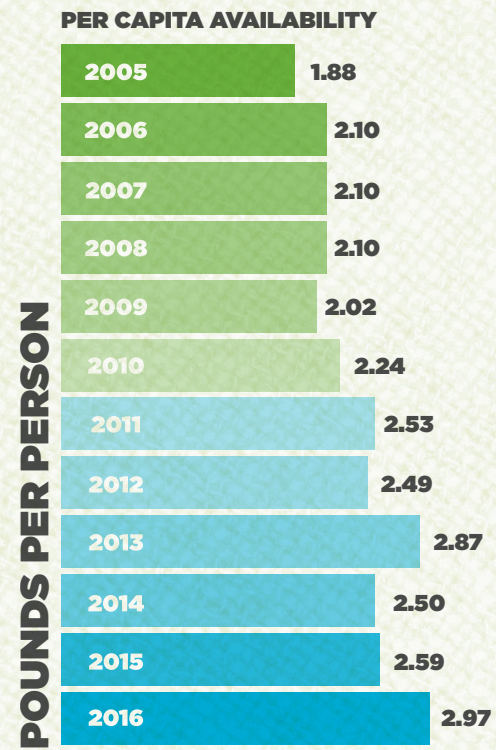
STATE OF THE MANGO INDUSTRY*

*Top Five Importing Countries: Brazil, Ecuador, Guatemala, Mexico & Peru



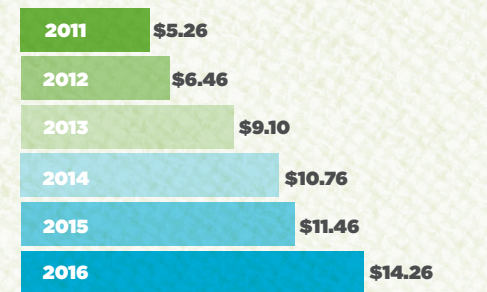
17% INCREASE IN VOLUME COMPARED TO 2015

5% INCREASE IN VALUE COMPARED TO 2015



15% INCREASE COMPARED TO 2015

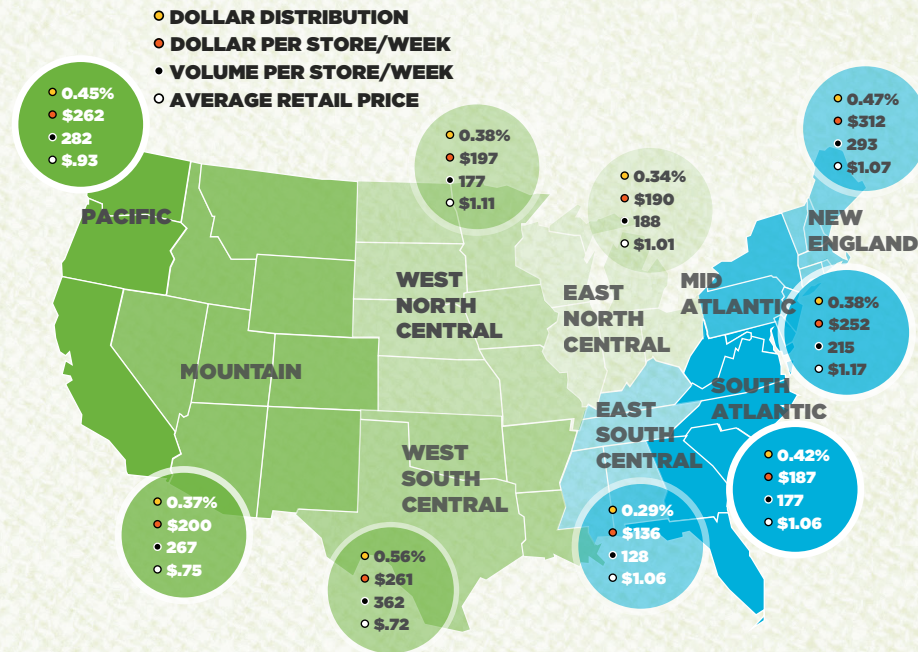
RETURN ON INVESTMENT



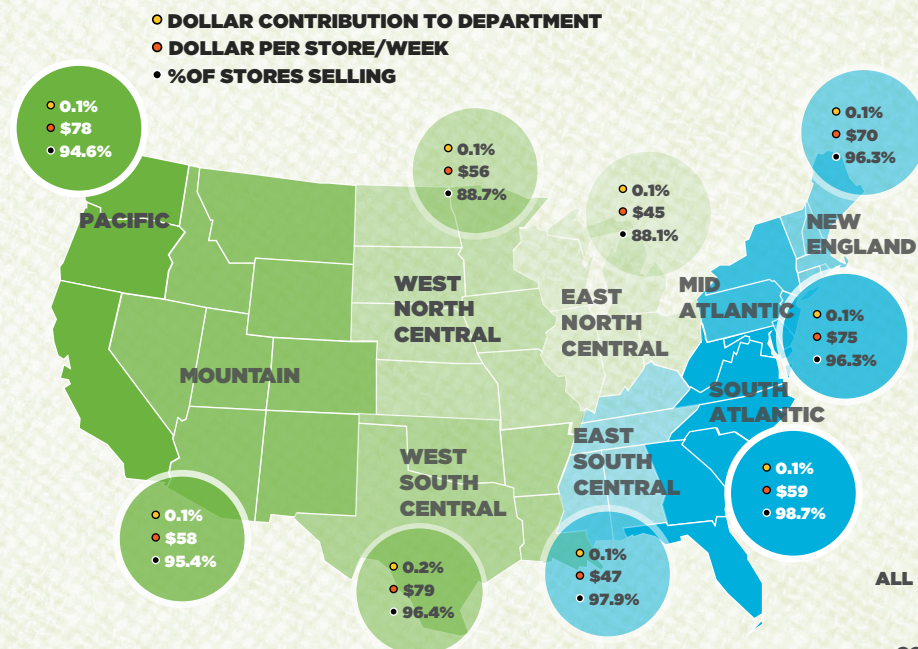
FROM 2008 TO 2016 FOR EVERY DOLLAR INVESTED IN THE NMB, THE INDUSTRY SAW A RETURN OF **\$14.26**

MANGO PERFORMANCE AT RETAIL

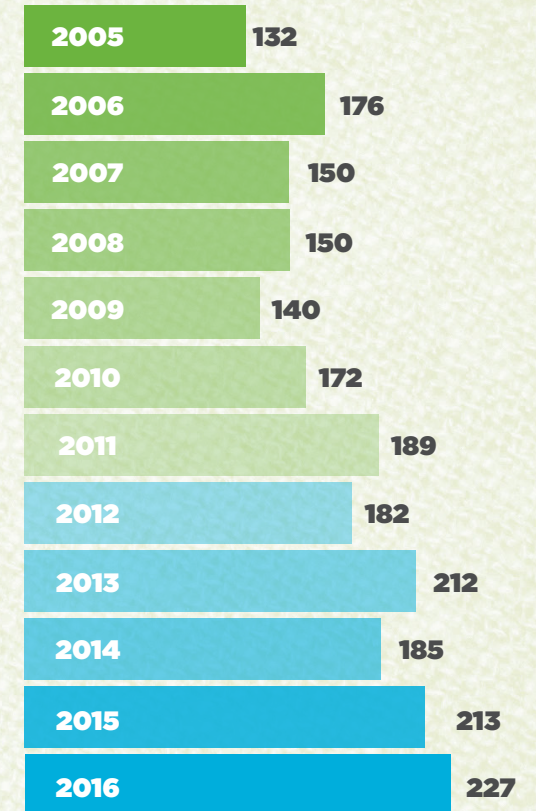
REGIONAL MANGO PERFORMANCE



SUB-REGION MANGO ONLY FRESH-CUT PERFORMANCE

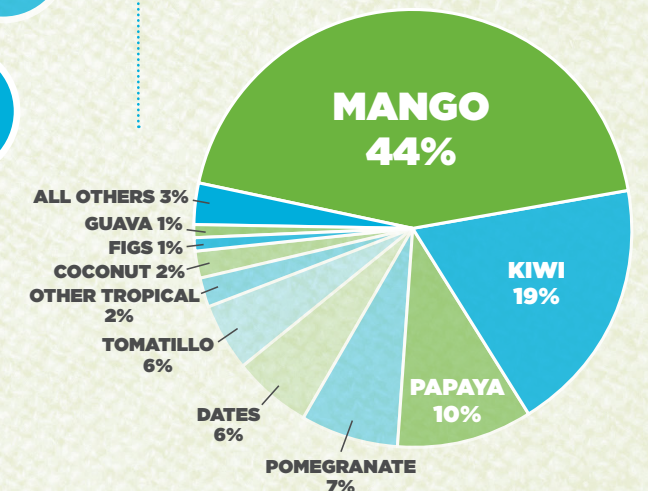


MANGO VOLUME PER STORE PER WEEK



7% INCREASE COMPARED TO 2015

TROPICAL FRUITS SHARE OF CATEGORY DOLLARS PER STORE/WEEK



INDUSTRYWIDE INITIATIVES

MANGO ORDER AMENDMENT

The Proposal to amend the Mango Order was approved unanimously by the NMB members and submitted to USDA’s Agricultural Marketing Service. The next step involves USDA review of the proposal and determining whether there is sufficient justification and industry support to move forward. If USDA proceeds, then the proposal will be published in the Federal Register to move forward as a proposed rule to allow for public comment. Based on the feedback received, USDA will determine whether to conduct an industry wide referendum. In the meantime, the NMB will continue doing outreach and communicating with the industry.

MARKETING PROGRAM

The marketing program aims to educate U.S. consumers on the mango fruit and influence mango purchases in grocery stores and foodservice settings.

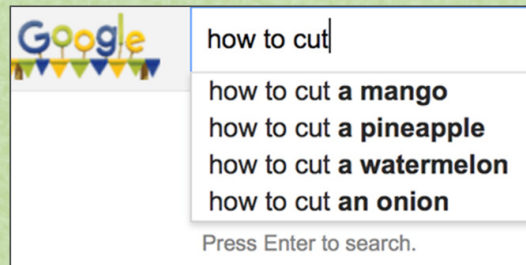
CONSUMER PR & MARKETING

Strategic Priority One – Direct to consumer marketing to increase mango consumption and awareness through educational initiatives, consumer research, nutrition messaging, multi-media strategies and more.

Food Revolution – Mangos: making the right moves at the right time.

HIGHLIGHTS

- Winners of **Produce Business Marketing Excellence Award** for 2015 soccer partnerships in the Consumer PR Program.
- **2.7 billion** total consumer impressions in 2016! – setting a new NMB **consumer impressions record.**
- Google’s number one food-related “how to” search query is “how to cut a mango.”
- *SAVEUR*, one of the most respected publications in the food world, ran mango-focused editorial in print and online.



RIPE AND READY TO EAT MANGO PROGRAM

The Ripe and Ready to Eat Mango Program (RRTEMP) continues to capture more interest than ever before among retailers, distributors and industry members. Retailers currently in the program have benefited from increased sales and repeat purchases. The use of ripened mangos is also growing in the foodservice sector. Chefs and operators look forward to having a steady supply of ripened mangos in their kitchen. All RRTEMP efforts aim to offer a quality fruit that is consistent, ripe, and ready to eat.



SPOKESPERSON JULIE JOHNSTON

Julie is a Star of the Chicago Red Stars team and member of the National Women’s Soccer Team

Julie used her social media channels and national media broadcast to inspire consumers to eat more mangos.

- 118+ million media impressions
- 1.7 million social impressions
- Mangos received shout outs in publications like *People* and *Sports Illustrated*



SAMPLING EVENTS

Sampling events helped connect the consumer with the great taste of mangos. These events also provided nutritional information, education on how to select and cut, and recipe inspiration.

National Women’s Soccer League (NWSL)



Mangos were featured as the official superfruit of the NWSL.

- Sampled over 10,000 mangos at six games nationwide.
- Social media engagement reached 9.7K
- 1.3 million social media impressions across NWSL
- 612K stadium signage impressions across 10 stadiums



US Youth Soccer



As an official snack of US Youth Soccer, mangos proved to be a kid favorite.

- Sampled over 4,000 mangos at 10 Kohl’s American Cup Tournaments.
- 40K signage impressions across 12 tournaments
- E-newsletter inclusion with 1.4 million impressions
- 440K social media posts impressions throughout Twitter and Facebook
- 1.8 million website promotion impressions

Solstice in Times Square

The largest yoga event in the country!

- Sampled multiple varieties of fresh mangos to over 5,000 active, health conscious men and women in New York City.
- 213K event impressions
- 93 million media impressions
- 113K impressions for sponsor public announcements
- 51K event website views



SOCIAL MEDIA

Social media community inspires mango usage among consumers through mango recipe ideas, variety awareness, and nutrition education.



- 61K followers
 - Facebook 54K
 - Twitter 3K
 - Instagram 3K
 - Pinterest 1K
- 2.6 million impressions
- 154K social engagements

Mangos Around the World

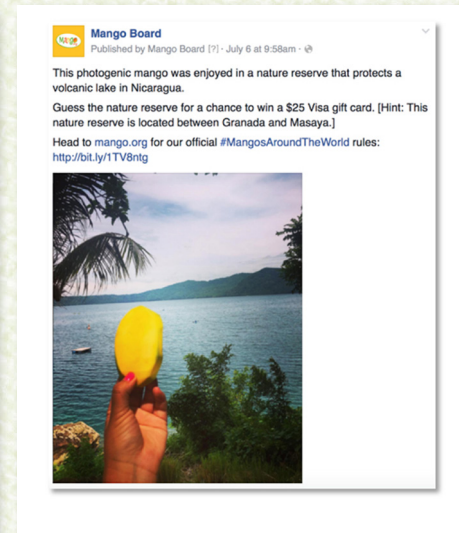
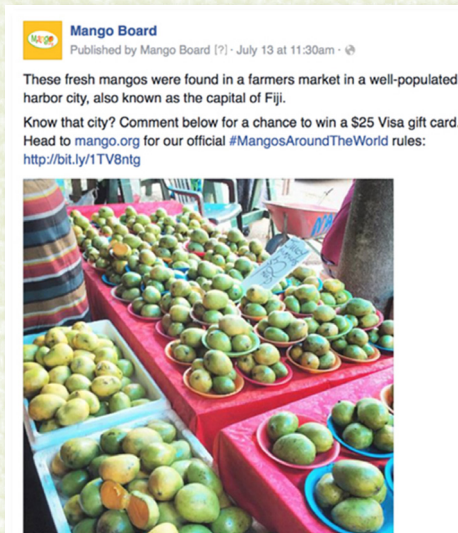
NMB's most successful social campaign to date! It engaged consumers by highlighting the global love for mangos and the culture surrounding it.

- 20K entries – **Record breaking!**
- 29K total likes
- Over 486K+ total reach

Meal Prep

Partnered with popular foodie bloggers to create new and original recipes, inspiring consumers to include mangos in their healthy lifestyle.

- 4.4 million impressions
- 62K likes and comments
- 1+ million impressions from #mealpremondays



NUTRITION PR & MARKETING

HIGHLIGHTS

- 1 billion total nutrition media impressions – a new NMB record!

REGISTERED DIETICIAN AMBASSADORS

Registered Dietician (RD) ambassadors secured mango coverage media placements, by creating blog posts, and placing mango messages on BuzzFeed, The Huffington Post, WebMD, Food Network Healthy Eats, and more.

- 501 million media impressions

NUTRITIONAL RESEARCH COVERAGE

NMB-funded nutritional research published in 2016.

- 244 million media impressions

SHARE. MANGO. LOVE.

The Share. Mango. Love campaign documented and showcased the culinary story of mangos in Mexico City, with the purpose of highlighting the world's love of mangos to RDs and nutrition media outlets.



THE HUFFINGTON POST





RETAIL PROMOTIONS & MARKETING

Strategic Priority Two – Increase presence and sell-through of mangos at retail.

RETAIL PROMOTIONS

Retail promotions keep mangos top of mind for stores and consumers.

- 48K stores impacted
- 15.5K demo events
- 83% increase in mango volume due to NMB funded promotions



RETAIL TOOLS

The NMB offers fun and easy ways to educate store associates and successfully pump up mango sales.

- 9,400 bins shipped in 2016
- Mango Mania Display Contest
 - 90 entries
 - 103% increase in mango volume among participating stores
- 773 Mango University graduates! An increase of 553% from 2015



Retailers participated in farm tours in Puerto Rico and Mexico

- Raley's
- Southeastern Grocers
- Price Chopper
- Walmart
- Whole Foods



Wynn Peterson and Gary Campisi of Walmart were named the NMB's Retailers of the Year in 2016.

FOODSERVICE PR & MARKETING

Strategic Priority Four – Increase presence and sell-through of mangos at foodservice.

HIGHLIGHTS

- 9.6 million total foodservice media impressions
- 4.6K units impacted
- 85% volume increase due to NMB branded promotions
- 38 chains received fresh mango menu support from the NMB



MANGO STREET SMARTS

In recent years, the distributor segment of foodservice continues to grow. To support this growth, the NMB developed *Mango Street Smarts*, an educational tool to help buyers and distributors drive their mango sales.

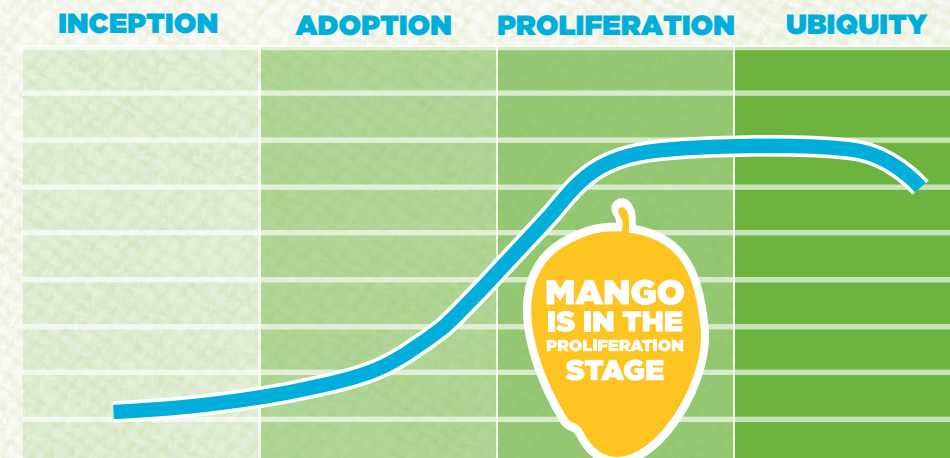


A POWERFUL INGREDIENT FOR MENU INNOVATION

- In 2016, 1/3 of restaurants featured mango on the menu
 - 80% growth since 2005
- Mango ranked as the 9th most common fruit on appetizer, entrée and side menus in 2016
 - Up 12% since 2012



MENU ADOPTION CYCLE



RESEARCH PROGRAM

Strategic Priority Five – Generate knowledge through research efforts in support of the vision.

NUTRITION RESEARCH

The discovery of new, positive nutritional information and health benefits from eating mangos can have a major impact on increasing mango consumption.

CONDUCTED RESEARCH IN 2016

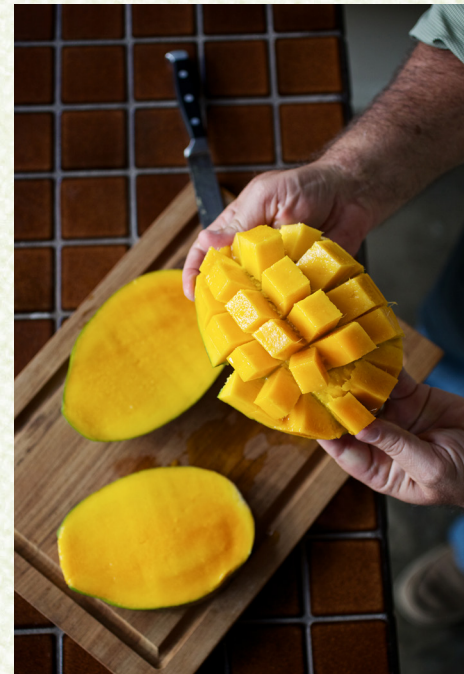
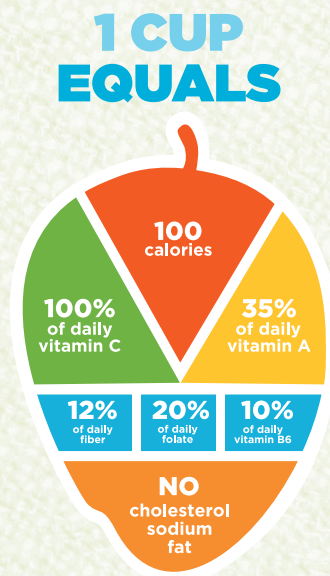
- Diabetes Human Study: Mango supplementation could help improve glucose response and clinical parameters of pre-diabetic subjects – Oklahoma State University
- Diabetes Animal study: Understanding how mango affects glucose homeostasis in type two diabetes – Oklahoma State University
- Digestion Human Study: Mango in the promotion of intestinal regularity in subjects with constipation – Texas A&M
- Breast Cancer Human Study: Breast cancer preliminary human study – Texas A&M
- Colon Cell Absorption Human Study: Human Bioavailability and anti-inflammatory properties of mango polyphenols – Texas A&M
- Metabolism and Cell Culture Study: In vitro metabolism of mango polyphenols and their anti-inflammatory activities – Texas A&M
- Nutrition and health literature review – Illinois Institute of Technology

HIGHLIGHTS

The research findings of the first five projects listed above were presented at the Experimental Biology Conference. These studies suggest that the effect of mango consumption has the potential to help combat adverse effects associated with high fat diets and obesity, inhibit growth of fat cells, slow advancement of breast cancer tumors, and improve regularity and decrease inflammation associated with constipation.

NUTRITION STRATEGIC PLAN

Over the coming years, the NMB will focus their research funding in the areas of cardiovascular health and bioavailability and pharmacokinetics. These new areas will explore the potential nutritional and health benefits of mango.



POSTHARVEST RESEARCH

From the tree to the consumer's plate, every step in the mango supply chain represents an opportunity to improve quality. The NMB has invested in extensive research to provide a clearer understanding of how quality can be improved through better production, postharvest, handling practices, and food safety.

HIGHLIGHTS

- Additions were made to the Mango Industry Food Safety Training Kit (FSTK) apps to include:
 - Two new chapters on "Handling, Use, and Storage of Agrochemicals," and "Worker Health and Well-Being."
 - A 30-45-minute e-training app for the "Foreign Suppliers Verification Program."
- Increased efforts to reach industry consensus on a common packaging footprint for the mango industry through the Mango Packaging Task Force, which was composed of: importers, producers, retailers, researchers, and packaging manufacturers.
- A voluntary sustainability program was developed for mango producers and packers. Additional research was conducted on sustainable solutions for postharvest challenges such as anthracnosis, pitting, cutting black and sunken shoulders.
- The NMB supported research on the development of the mango genetic map, an association of traits and the genotyping of germplasm collections, which will make mango breeding more efficient.
- Literature reviews were completed for fertigation and rootstock information, which will guide the NMB on future research in these topics.



PRODUCER EXTENSION PROGRAM

The Producer Extension Program is an excellent educational outreach program in major mango producing regions. In 2016, eleven extension meetings were conducted/ sponsored, reaching more than 2,000 attendees. These meetings covered various topics including climate change, nutrient management, fertigation, pest and disease control, management of flowering, food safety, and more.

For more mango inspiration and insight, visit:

 mango.org

 @Mango_Board

 facebook.com/mangoboard

 pinterest.com/mangoboard

 facebook.com/mangosconnect

 youtube.com/mangoboard

 @mangoboard

 National Mango Board

